

HOUSING
AND
COMMUNITY PLANNING

McGILL UNIVERSITY
1944

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HOUSING
and
COMMUNITY PLANNING

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HOUSING

and

COMMUNITY PLANNING

A SERIES OF LECTURES DELIVERED

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1944

TABLE OF CONTENTS



	PAGE
I. THE ECONOMIC BACKGROUND OF HOUSING AND COMMUNITY PLANNING IN POST-WAR CANADA, F. CYRIL JAMES.....	11
II. PRIVATE AND GOVERNMENT PLANNING, JACOB BAKER.....	24
III. LAND POLICY, WILLIAM MACROSSIE.....	34
IV. THE GROWTH OF PHYSICAL PLANNING, JOHN BLAND.....	44
V. REGIONAL PLANNING, JOHN BLAND.....	51
VI. COMMUNITY STREET SYSTEMS, R. DE L. FRENCH.....	57
VII. TRAFFIC, TRANSPORTATION AND TERMINAL FACILITIES, D. E. BLAIR.....	63
VIII. PLANNING PUBLIC SERVICES, AIMÉ COUSINEAU.....	72
IX. THE PLANNING OF PUBLIC HOUSING, WARREN JAY VINTON.....	83

	PAGE
X. FINANCIAL PLANNING AT THE COMMUNITY LEVEL,	
BENJAMIN H. HIGGINS.....	98
XI. MEASUREMENT OF HOUSING NEEDS SUPPLY AND POST-WAR REQUIREMENTS,	
O. J. FIRESTONE.....	109
XII. GOVERNMENT PLANNING IN CANADA,	
LEONARD MARSH.....	133
XIII. CITY PLANNING AND OUR NORTH AMERICAN SOCIAL HERITAGE,	
CARL A. DAWSON.....	148
XIV. THE PROBLEM OF PLANNING IN QUEBEC,	
EVERETT C. HUGHES.....	156
XV. PLANNING FOR HEALTH AND RECREATION,	
A. S. LAMB.....	166
XVI. CITY PLANNING AND THE LAW,	
HONORÉ PARENT.....	178
XVII. CITY OWNED LAND AND THE HOUSING PROBLEM IN MONTREAL,	
PERCY E. NOBBS.....	196
XVIII. NATIONAL RECONSTRUCTION PROGRAM,	
GRAY TURGEON.....	204



FOREWORD

HOUSING and community planning are expected to bring about increased employment, prosperity, slum clearance, improvement in health, solution of the traffic problem, or other advantages, depending upon the need which is most obvious. There is little agreement upon what is involved, or how housing can be effective, or what planning really means. What are the underlying economic problems in setting up a planning scheme? How is the social pattern affected by physical changes? What is the experience of others? What effect will our customs have upon any plans that we may make? What are our opportunities and our needs? These are the problems that this book attempts to discuss. It is a survey of ideas about physical planning that may be useful in preparing post-war plans, or in evaluating them. It endeavours to reveal some of the problems from different points of view.

The chapters were written as separate papers and given as lectures in a series under the title of "Housing and Community Planning, with Special Reference to Post-War Opportunities". The series was arranged by the School of Architecture and took place during the session of 1943-44 on Tuesday evenings in the Engineering Building. One hundred and forty were enrolled in the course, besides students from the Department of Sociology and the School of Architecture. The order of the lectures has been slightly altered in the book, as it seemed more appropriate to group the chapters into those which were general, those which dealt with our problems here in Quebec, and those which dealt specifically with Montreal.

Mr. Aime Cousineau, Colonel J.-E. Pinault, and Mr. Burroughs Pelletier deserve our thanks for their assistance upon the organizing committee of the course, and also Dr. Benjamin H. Higgins for his part and for the suggestions that he gave us based upon his experience of planning in the United States. We are particularly grateful for the enthusiastic support of Mr. Gordon Pitts, then President of the Royal Architectural Institute of Canada and a Governor of the University, and to Colonel

Wilfrid Bovey, Director of the Extension Department, for his assistance in the organization and administration of the course, and for being chairman at so many of the meetings.

We would also like to thank all the anonymous members of the University staff who in addition to their regular work have contributed freely so much of their time to the success of the course.

Finally, we wish to express our appreciation for the help and encouragement of the Government of the Province of Quebec, without whose assistance this book might not have been possible.

JOHN BLAND.

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The Economic Background of Housing and Community Planning in Post-War Canada



DR. F. CYRIL JAMES

Principal and Vice Chancellor, McGill University

In order to appreciate the impact of this war upon the Canadian economy I should like to cite three figures.

At the bottom of the depression the total national income of Canada fell to \$2,800,000,000 a year. Immediately before the war our total national income was \$3,900,000,000 a year. Today it is something like \$8,400,000,000.

These figures of national income represent an attempt on the part of economists and statisticians to add up the total value, at current prices, of all the goods and services that are produced in the Dominion of Canada during the course of a year. The total is therefore influenced by any changes in the prices at which these goods and services are sold, but, in spite of price increases during the last ten years, it is apparent that there has been a phenomenal expansion in the total quantity of goods and services pouring out from Canadian factories and Canadian farms. Approximately half of this total national income at the present time is being expended directly on the war effort, so that it does not contribute in any economic fashion to the standard of living of the average Canadian. But, in spite of this fact, the average Canadian is better off today than he was before the war. The aggregate sales of civilian goods of all kinds have actually increased; and although most people whose annual income was above, let us say \$3,000 in 1939, may find their standard of living reduced by the present high level of taxes, it must be remembered that the vast majority of the families in this country at the outbreak of war were earning less than \$3,000 a year. To those in the lower income brackets, increased opportunities for employment, rising wages in the early stages of the war, and the cost of living bonus since that time have offered an opportunity to purchase many things that could not be included in the family budget prior to 1939. To cite still one further figure: five Canadians out of every eight above the age of fourteen are at present enlisted in the Armed Services or engaged in war industry, so that the remaining three are carrying the full burden of peacetime economic activity. In a word, Canada has come closer to the ideal of full employment than at any previous time in its history, and may in fact have gone far beyond the ideal point, since present circumstances require the retention in

gainful employment of many old persons who might reasonably expect to enjoy the well-earned leisure of retirement, as well as of many youngsters who might more profitably remain at school.

As a result of this wartime activity, the Canada which will confront the world after hostilities have ceased will be a different type of country in an economic sense from that with which we were acquainted prior to the outbreak of war. Its productive capacity will have increased tremendously. In agriculture, in spite of a very small increase in acreage and actual reduction in man power, Canada has maintained its output of wheat and coarse grains while at the same time increasing enormously its production of pig products, eggs and dairy products. The poster which informs us that four out of every five little pigs now go to Britain is a truthful statement of the facts, and the Canadian farmer is today making a larger contribution to feeding the rest of the world than he has ever made before.

In regard to industry, new factories have been built and old factories expanded beyond recognition for the purpose of producing within this Dominion dozens of different kinds of munitions of war. Between 1914 and 1918 Canada produced little more than shells and small arms munitions from its factories. Today we are producing aeroplanes, automobiles and gun carriers, many types of cannon, rifles and machine guns, and many types of munitions necessary to feed the insatiable appetite of the latter. We have also made tremendous progress in the development of the chemical industry, and the operations of the great aluminum factories in this province testify to the extent to which basic raw material producing industries have expanded. Even in the case of machine tools fundamental to all manufacturing industry, Canada has for the first time in its history reached a position where it can stand upon its own feet and not be dependent upon importations from other countries.

Paralleling this industrial expansion, there has occurred in the Dominion during the past four years a great increase in the number of skilled and semi-skilled workers. Within the Armed Services hundreds of men have learned skilled trades in order that they might more effectively service and operate the complicated machines of war on land, at sea and in the air. Hundreds of thousands of other men and women have been drawn into industrial factories and learned the techniques of machine production, so that the supply of skilled workers will at the end of this war be larger than any figure previously imagined by industrial statisticians.

The only off-set against this great increase in productivity refers to the fact that during the past four years Canada has been steadily using up its known mineral resources and to a certain extent its forest resources. Both of these processes are serious, but not vital. Proper forestry policies will within a generation enable us not only to recover the ground that we have lost since hostilities began but to recover also much of the ground that was lost during preceding decades when the natural resources of this Dominion were all too often exploited with little consideration for the future. Even in the case of minerals where

no replacement is possible, it seems likely that there exists under the surface of this country tremendous undiscovered resources of many important products, so that the resumption of surveying and prospecting should enable us to make good the apparent losses which war has inflicted upon us.

This revelation of the potential productivity of Canada under the stress of war has naturally led to a widespread feeling that Canada should continue to maintain full employment during the post-war period, both for the purpose of providing jobs appropriate for all the men and women demobilized from the services and discharged from war industry, and for that of raising the standard of living of the whole Canadian population. I do not think that the people of this Dominion will ever again be content to accept quietly a situation in which hundreds of thousands of workers are unemployed and millions of those employed find the contents of the weekly pay envelope declining steadily. If we really mean the things that we say about the freedoms of the postwar world and the ideals for which we fight, all of us must consciously resolve that we shall do all in our power to prevent the recurrence of such widespread depression as existed on this continent a decade ago. But, if we are realistic, we must continually bear in mind the fact that the maintenance of full employment is much more difficult in times of peace than it is when the community is wholeheartedly engaged in a struggle for its very existence.

Let me mention a few of the difficulties which any policy of full employment will encounter after victory has been won. In the first place, unless we are to change completely the whole pattern and tradition of the Canadian economy, we must find substantial foreign markets for those products which we produce in quantities greater than any conceivable domestic demand. The export markets exist today because of the insatiable needs for food and munitions on the part of our allies, and equally because Canada's billion dollar gift to Britain and the lease-lend policies of the United States helped to pay the bills for the goods that are exported. From what I have already said, it is apparent that the Canadian farmer is today, and will be during the immediate post-war period, more dependent on foreign markets than at any time in the history of this country, and much the same thing could be said of many Canadian industries.

In summary, therefore, the Canadian prosperity depends upon healthy international trade and the general prosperity of the nations with which we deal, a condition which will only be attained if Canada and many other nations cooperate as enthusiastically in the effort to find solutions for the problems of peace as they have in the bitter struggle which now engages their attention. Problems of tariff and other obstacles to trade, as well as problems of human migration, are not new in the history of the Western World, but we shall have to make more determined efforts to solve them if Canada is to be able to provide a profitable employment for an adequate number of its people in the kind of jobs to which those people have been used during the years that lie

behind us. It is equally evident that the problem of an international currency is as vital as those concerned with tariffs and migration, so that Canada has a fundamental concern for the success of the discussions that are now going on with Great Britain and the United States, caring less about the details of the scheme that is to be developed than about the fact that some workable scheme participated in by several leading nations should be promptly adopted.

I need not labour the point. The difficulties of international cooperation have in the past always proved greater in time of peace than during a period of war and your own knowledge of Canada will elaborate my remarks about the importance of such international agreement to the prosperity of this Dominion. Even apart from that problem, however, it should be realized that within the frontiers of Canada war-time production is easier to organize than peace-time production. There has been a good deal of discussion about the complicated system of priorities introduced for the purpose of ensuring the maximum efficiency of Canada's war effort, but priorities in time of war are simple compared to the problems that would have to be faced by any priority administration in time of peace. While we are at war each of us knows in his heart that the attainment of victory is the one thing of paramount importance, beside which no other interest or desire of the community can receive any consideration. The government is in a better position than any individual to know the precise needs of the armed services, and the goods which are produced are standardized as far as possible. It is also apparent that the demand for each of these standardized products is almost insatiable in the sense that a belligerent power very seldom feels that it has on hand during a war too large a supply of the necessary munitions.

None of these generalizations would hold good in regard to civilian demand in times of peace. Even in the matter of food people like to cater to their own preferences. They desire different styles of clothing, various types of automobiles, and wish to satisfy their personal taste in the matter of homes and furniture. They desire a wide range of choice in regard to the way in which they will expend their income, wishing one year to take an extended vacation and forego the purchase of commodities, but to reverse this process at other times. Without introducing a very much greater degree of standardization than existed prior to 1939 no governmental body could plan to produce in appropriate quantities the infinite variety of goods and services which made up in the aggregate the Canadian standard of living.

As a third factor, it should be pointed out that unless we discover some equally compelling motive of human conduct, it will be difficult after the war to maintain the high level of effort which has characterized war production. Much as we may regret the fact, history demonstrates conclusively that men and women put forth all that is in them during those critical moments when their country is under attack. A splendid picture of this was drawn in that chapter of C. E. Montagu's "Right Off the Map", in which a group of shoemakers worked solidly

through 48 hours to meet the emergencies of a retreating army. But the fiction of that splendid book was revealed in fact a thousand times during the period when the people of Britain stood on guard against the Blitz. From one factory after another come tales, some not yet written down, of men and women, even of youngsters, who worked persistently through 18 and 20 hours a day in order to meet the imperative demand which existed when the armies were evacuated from Dunkirk. The story of the Sten gun is only one chapter in that magnificent record of human fortitude, a chapter which reveals how thousands of men and women working in homes and barns, as well as in factories, succeeded by their efforts to supply the weapons which were needed to beat off an expected invasion.

The pecuniary motive is no adequate explanation of this kind of effort. Men and women will work to earn the money to buy the things which they want, but this desire seldom evokes such a consistent effort. Unless we can during the post-war period find in the intense desire to make a better world a motive as general, and as compelling, as that which self-defence provides during the war itself, we shall have difficulty in producing, even during a period of full employment, anything like the national income which Canada now produces, in spite of the fact that three quarters of a million of our best men and women are withdrawn from economic activity to serve in the armed forces.

I must point out too that this question of motive also applies within the field of finance. During the last few years the government of this Dominion has taken through taxation a portion of the national income so large that no previous Minister of finance would ever have dreamed that such a policy could command the wholehearted support of Canadian people. In addition to paying unprecedented taxes, Canadians are being asked this year to subscribe to two war loans, aggregating between them one quarter of all the wages, salaries, dividends, interest and fees that Canadians as a group have received during the present year. That means 25% of each person's total income before the payment of taxes, so that a very much larger proportion of income after the payment of taxes must be subscribed to make these war loans a success. All of you will remember that the first loan of this year, the Fourth Victory Loan, was successful beyond all anticipations, and current evidence suggests that the loan now being raised will be equally productive.

It is doubtful whether this willingness on the part of the average citizen to allow the Dominion Government to spend one-third or more of his income for him will continue to exist as generously after the war is over. I suspect that a very large number of people will wish to spend their own money, that a very large number of business men will wish to build their own factories, and that any attempt on the part of the government to maintain the present level of taxation and borrowing will create strong resentment on the part of many citizens.

This mention of finance leads naturally to a discussion of those economic theories that emphasize the relationship of total investment to full employment within a country, theories that have been made very popular during the past ten years by the efforts of such people as Lord

Keynes in Great Britain and Professor Alvin Hansen in the United States. Although I cannot attempt here an extensive theoretical exposition and discuss all of the considerations that are involved, I shall attempt a brief statement for the purpose of setting in clearer focus some of the problems of housing and community planning with which the study involved in this course is concerned.

Total national income as I have already suggested comprises all of the goods and services produced within the Dominion of Canada during a particular year. In almost all cases this production of goods is offset by money payments, so that total money payments received as income by all individuals and institutions should (in very rough approximation) be equivalent to the total value of goods and services produced, estimated at current prices. Citing but one example,—the total value of all the newsprint produced in Canada is represented by a series of payments which the industry has made to the lumber jacks who felled the timber, to the owners of the timber rights, to the employees in the mills and to the individuals who through the ownership of stocks and bonds have provided the capital through which the industry was equipped.

If prosperity is to be maintained throughout the country it is, broadly speaking, necessary that all of the money received as income by individuals and institutions (including governmental bodies) should be spent for the purchase of the goods and services available on the market. So far as consumer expenditure is concerned this does not create any serious problem. Statistics reveal the fact that consumer expenditure is comparatively stable during periods of regular employment when price levels are not changing markedly. Many families in the lower income brackets spend all, or almost all, of the weekly income on the purchase of those necessities and comforts which comprise their standard of living while, in the case of those with larger incomes the pattern of spending habits does not change seriously from one month to another. A good deal of the discussion which occurred in the 1930's regarding the desirability of increased expenditure on consumption therefore seems to be both unnecessary and impracticable. It is exceedingly doubtful whether any government or private propaganda could persuade an individual or a family to spend a larger portion of the weekly earnings than that individual or family deemed desirable in the light of their traditions and habits.

I want to focus your attention, however, on the residual portion of money income, the amount by which aggregate money income exceeds current expenditure for consumption purposes. This difference between expenditure and income constitutes what we regard as savings, and I need not explain to you that in each individual case the amount of savings from the income of a given year is determined by the individual's appraisal of many divergent factors. It depends upon the size of his income and particularly upon the extent to which that income has increased or decreased in recent years. It depends upon his expectation of future earnings and upon the price which he has to pay for the things that he desires as well as upon his expectation of future price changes.

All of these factors entering into an individual's decision are subjective and personal, but the net result of them is that a portion of his earnings is withdrawn from expenditure. Platitudinous as the statement may seem, I want to reiterate the fact that savings comprise a certain number of dollars which the individual decides not to spend at the present moment, he may keep them in a tin box, deposit them with a bank, or invest them in securities, but so far as he is concerned the savings are not spent on any of the goods and services which represent the current national output.

In classical economic theory, of course, the savings of all individuals and institutions comprise a pool of capital funds which can be drawn upon by business men and governments who wish to borrow money for the purpose of financing a programme of capital expansion or new construction. This, of course, is obvious, but I want to call to your attention the fact that the decision to build a new factory or purchase a new machine is made by the business man on the basis of his personal appraisal of a group of economic factors which may be different from those considered by the individual saver. Most important of all in the mind of the business man is his expectation of future earnings. If he expects that general economic conditions will enable him to produce goods efficiently and sell them to consumers at a fair price he will purchase the machine or build the factory. If he has no such expectation he will not wish to carry out investment programmes no matter how large the available supply of savings may be.

This simple fact is of tremendous importance. The total savings of the community during any given period will not be spent unless a group of individuals other than the savers, decide that the time is propitious for new investment. There is therefore no certainty that the total volume of saving will equal the total volume of investment (i.e. the total expenditure on new capital goods) during any given period of time, and if investment is less than saving it means that the total amount of money spent in the country is not enough to purchase all of the goods and services at current prices.

In such circumstances an economic depression will evidently occur and, in point of fact, the lack of continuing equilibrium between total saving and total investment has in the recent past been one of the major reasons for cyclical disturbance in our national economy. Let me cite a single example. During a period when commodity prices are declining slightly and there is some fear of future unemployment, many individuals will tend to cut down their expenditure on consumption in order to increase their current saving. They are moved to do this both by the fear of unemployment in the future and by the thought that they will be able to purchase what they want at lower costs tomorrow. But in such circumstances few, if any, business men will wish to expand the capacity of existing factories or to build new ones. There will be little or no new investment, so that the augmented saving can only serve to depress commodity prices still further and aggravate the probability of unemployment.

In theory, this problem of the dis-equilibrium between saving and investment is easy to solve. All that would be necessary in an autarchic community would be that the state should collect from all individuals and institutions, by taxation or loan, the total amount of current savings and that this money should immediately be invested by the government in worthwhile public projects.

In actual practice the problem is not by any means as simple as this, for three important reasons. In the first place, if we in Canada are to preserve our present economic system, the size and timing of many of our investment projects will be decided upon by private individuals and corporations. No authoritative suggestion has yet been made that the government of Canada intends to nationalize all the operations of Canadian agriculture, industry and trade, so that as long as private enterprise continues to flourish in our economic life, we must realize that the individual decisions of thousands of business men will influence the aggregate volume of investment in any particular period.

In the second place, it is equally important to remember that the size of the national income of this Dominion depends on the extent of useful investment in projects which will continue to produce a revenue. The danger of wasteful expenditure by an autarchic state is no less real than the danger of wasteful expenditure by a private individual or corporation. Vast swimming pools and other luxuries such as were constructed in Germany during the 20's may prove just as great a liability to the community as any privately constructed factory which fails to earn a dividend. The important matter is not whether the project is carried out privately or under public auspices but whether that project contributes effectively to the national income of its sponsors and the community during all the years that follow its construction,—providing not only the resources out of which the original investment can be written off but also a reasonable income for all of those employed in connection with it. Such an income may of course be intangible, or even psychic. Neither a motion picture house nor an art gallery adds one single pound to the aggregate weight of goods as produced in Canada, but the service rendered by the cinema is amply evidenced by the fact that millions of people each week pay good money for the purpose of watching the films; while in the case of an art gallery the intangible contributions to culture and human living are well worthy of a reasonable expenditure of the community's capital. That word "reasonable" must however be emphasized. We cannot make Canada prosperous by building thousands of art galleries, auditoria, churches and other decorative public buildings. It is not unreasonable to generalize in this matter from the case of an individual to that of a nation. Many an individual with artistic tastes has found to his discomfort that a home, no matter how beautiful, may prove too expensive for his pocket book; and in the case of a nation it is equally true that the proportion of our national income which can be spent on beautification that is unprofitable in the narrow economic sense is restricted to that portion

of total earnings which is over and above the amounts that must be expended for the goods and services which people wish to consume in more tangible form.

I would add too as a third obstacle to any sweeping attempt to find a simple theoretical solution, the fact that in a world economy such as that on which Canadian prosperity depends, anti-depression policies must be international if we are to maintain that equilibrium of national price levels on which a world monetary system depends. This problem is naturally less significant to a country like the U.S. where foreign trade even in normal times constitutes a very small fraction of domestic trade. In the case of Canada however foreign trade, as I have already insisted, constitutes an important source of income and an important element in national prosperity. We cannot afford to jeopardize our international trade by ill-advised policies of domestic public investment, so that any decision regarding anti-depression policies of public expenditure must in the case of this Dominion be considered carefully against the background of international economic conditions, and a determined effort made to persuade other nations to participate with us in common policies appropriate to the occasion.

In a realistic sense therefore, the maintenance of Canadian prosperity, on which all policies of housing and community planning must depend, involves the encouragement of stable world trade along the lines that have already been indicated. In particular, within the domestic economy of Canada, this implies the encouragement of individual initiative and private investment in as many areas as possible, since the complexity of the post war problem is such that we shall urgently need the wise judgment of those business experts in many fields of endeavour who are willing to risk their reputations and resources in attempting to rehabilitate industrial, agricultural and commercial enterprises. Such a policy of course implies that we should as soon as possible modify and reorientate those wartime controls which were deliberately designed for the purpose of restricting consumption and limiting economic activity, but long before we reach the stage of complete decontrol (if we ever reach it) it is necessary that the government should take constructive steps in the field of fiscal policy for the purpose of encouraging or discouraging private investment at the appropriate time.

Let me pause for a moment to explain what I mean in this context. It will already be apparent to you from my brief excursion into the field of monetary theory that aggregate investment should be precisely equal to current saving during that period of time so that excessive investment is just as dangerous as the failure to utilize the total available supply of saving. During periods when private initiative seems unlikely to make use of the total savings available, the government can stimulate private initiative by such devices as a reduction of interest rate in the money market, the lowering of the rates of taxation on corporate profits (and perhaps personal incomes) and an increase in the depreciation allowances regarding deductions from income before taxation in the case of industrial and commercial corporations. These devices are not new. Each of them has been tried at one time or another by various

countries, and many of you will remember that they played an important part in the proposals which Mr. Charles Dunning, as Minister of Finance, laid before the Parliament of Canada prior to 1939. It is also apparent that these devices could be used in reverse: should private investment tend to outrun the volume of current saving creating possibilities of an inflationary boom, an increase in the rate of interest and in current levels of taxation, coupled with a reduction in depreciation allowances, would go far to reduce the current demands for new capital funds.

Even when such steps have been taken for the purpose of encouraging a maximum amount of private investment at appropriate times, it is likely that the attainment of policies of full employment will still require the governments of this country, provincial as well as Dominion, to work out appropriate programmes of public investment which could be brought into operation as a sort of balance wheel when private initiative is not willing to use all of the savings currently available. I need not discuss at length the large variety of projects which could reasonably be included in such programmes of public investment, since many of them will form the subject of subsequent lectures in this course. I would however point out by way of illustration that in the field of conserving and utilizing our natural resources there are literally thousands of investment projects which should be undertaken for the future welfare of this Dominion and many which could be undertaken with immediate profit to this generation. Almost every town and thousands of small villages would be the better for some programmes of public improvement; while the schools and hospitals, to say nothing of the docks, highways and other transportation facilities operated by government provide opportunities for well planned investment projects from time to time.

Emphasis must be placed upon the planning. Those of you who as architects or engineers are familiar with the preparation of construction projects know that thousands of hours of work and substantial expenditures are involved in the preparation of detailed diagrams and blue prints; to say nothing of the specifications on the basis of which tenders will ultimately be requested. If a programme of public investment is to be effective, the projects must be put into execution promptly at a time when the total volume of saving seems likely to outrun current investment, so that all of these plans must be carefully made long in advance of the moment at which the project will be executed.

The broad question of community planning is therefore one that must be tackled immediately by all those who are interested in the future development of this Dominion. Actual projects of development may be either public or private in their inception and supervision; but, in either case, it will be apparent from what I have said this evening that their execution cannot be postponed during a long period, while the community considers whether or not the particular project will fit into its future planning. The plans should be prepared immediately

so that they are available as a criterion by which any public or private project at any future time can be tested. The preparation of such plans is a responsibility that rests squarely upon the shoulders of every governmental authority in this Dominion—the township, the county, the province and the Dominion government itself. It is a responsibility which rests equally upon the shoulders of large institutions such as universities and hospitals which are in a position to plan the area of their own property as well as of business enterprises in a similar position. I would add too that it is a responsibility of citizens' groups in every part of the country, since it is a fundamental tenet of democracy that government seldom proceeds far in advance of the organized and active public opinion that is behind it.

The greatest indictment of our present civilization during the years immediately behind us is that in spite of the unprecedented wealth which science and engineering have granted us we did not attempt to provide a decent environment for living. Successive generations of students and thinkers have commented upon the abysmal horror of the slums which are to be found in most urban areas; streets of hovels that would not even in the middle ages have been considered desirable homes for human beings. Less has been said of the rural slums,—the scattered farm houses and small villages which do not enjoy the most elementary conveniences of modern sanitation, living and communication, but the condition of the rural population of this Dominion is in many respects as deserving of our attention as that of the urban areas.

At the present moment the devastation in Great Britain and other parts of Continental Europe has raised very pointedly the whole question of comprehensive urban planning, and as many of you know careful study has been given to the rebuilding of such towns as London and Coventry. Although we have been fortunate in that Canada has suffered no devastation we must equally concern ourselves with the broad questions of physical reconstruction if we are to provide communities appropriate to the future development of the Canadian people. I would add too that in regard to the rural community planning which is of such tremendous importance to Canada, it is necessary to consider more than the actual buildings which compose the village community. Rural planning involves not only the structure of the farm house, the church, the school and the community hall: it involves a planned utilization of the resources of the surrounding area, the maintenance of adequate forest cover, and of water table level in the soil, the control of mineral exploitation and the prevention of soil erosion.

One further question may well be asked. How much can Canada afford to spend on beautifying its towns and its countryside?

During the last few months I have heard a good deal of vague discussion of this subject, and, for reasons of simplicity I suppose, conversation seems to have settled on the figure of a billion dollars a year. Frankly, I do not know how much Canada can afford to spend for housing and community planning. As in the case of an individual who

is considering the amount that he can possibly spend for the beautification of his house or garden, the ultimate decision must depend upon the aggregate annual income and upon the amount which it is desired to spend for other desirable purposes. If we eat less and wear less we can spend more on our houses, or, stating the matter a little more sternly, if we spend too much on our houses we may find ourselves in a position where other things that we desire are not available in adequate supply. It is obvious that the total national income of this Dominion will be much greater than it was in the past if Canada really attempts to maintain full employment and, although I do not regard myself as a prophet, it would seem that the figure of $7\frac{1}{2}$ billions for the annual national income during the period immediately following this war is one that we might take as a rough sort of guide.

As to the other claims on that income, several considerations demand attention. If we are considering the future welfare of the Canadian people, which is the fundamental aim of our housing and community planning discussions, it is apparent that greater expenditure on education and social security is just as necessary as the provision of more satisfactory houses and more beautiful communities. Education to train the minds of future Canadians; medical attention to preserve their health; adequate nutrition to ward off diseases—all of these are essential expenditures. Equally important, I think, is the provision of unemployment benefit and sickness benefit for those wage earners who through no fault of their own are temporarily deprived of employment and a good case could be made out for the payment of more adequate pensions to those who have reached the evening of their years without having had much opportunity to accumulate a competence. All of these developments however will tend to increase that portion of the national income which is spent on current consumption, so that they will decrease the fund available for investment in either bigger factories or better homes.

From a completely different angle, it is probable that the redistribution of national income which will result from full employment and an adequate social security programme may lead to greater expenditure on consumption by the average Canadian family; removal of the fear of unemployment and the equally haunting fear of a penniless old age will tend to remove two of the motives which have in the past been responsible for a great deal of saving among the low income groups; while it is also probable that the fiscal policies involved in such a redistribution of national income will tend to reduce proportionately the incomes of the wealthier classes who before the war contributed a substantial proportion of the total annual savings of Canada. This conclusion is purely tentative. Since no country has ever maintained full employment for an extended period of time, we do not know what the saving-spending pattern of the population would be, but the probabilities suggest that saving would not increase proportionately to national income, and might well be reduced.

Third among the factors which will affect the maximum level of investment possible within the Dominion I would point out that if Canada is to play her full part in the world economy, she must expect to export capital to poorer nations after this war has finished. During the immediate post-war period we shall share the responsibility borne by all of the wealthier nations which have escaped from direct enemy attack, for the feeding and rehabilitation of starving populations in Europe and Asia. Some of those distressed nations may be able to pay us for the food and medical attention that they desire; but many of those in greatest distress will have to rely on international charity. We shall have to give them the food or lend it to them against some promise of payment in the distant future, thereby reducing for the time being the total of the national income available for consumption within the Dominion of Canada. That rehabilitation situation is of course temporary. It will have been met within 24 or 30 months of the conclusion of hostilities in any area, but when we turn to the larger range problems it seems likely that the development of greater international trade will also involve international loans from the wealthier nations of the world for the purpose of facilitating economic development of the poorer countries. Canada herself benefited from such loans during the 19th century and if we are to develop in Asia, Africa, India and South-eastern Europe a standard of living that implies reasonable prosperity and human well being, substantial loans from countries like Canada and the U.S. will be necessary for many years to come. Such loans have in the past been an essential part of the pattern of international trade, and if Canada should refuse to participate, desiring to spend the money entirely on developments within its own frontiers, it is reasonable to expect that the volume of our export trade would suffer seriously.

No individual can attempt to prophesy accurately the extent of Canadian expenditure on housing and community planning until he has estimated not only the future national income but the volume of expenditure annually resulting from each of these three sets of forces. Even though these claims on the growing national income of Canada may postpone the rebuilding of our communities a little longer than some enthusiasts expect, it is apparent that we can make steady headway at a more rapid rate than at any time in the history of this Dominion, provided that comprehensive planning is begun long before the conclusion of the war, and wise economic policies are pursued thereafter.

The opportunity that confronts us is greater than that given to any previous generation. We have recognized during these past four years the tremendous productivity of Canada, and if we keep our ideals before us, not as vague dreams, but as the practical elements in a plan that involves hard work and cooperation with others, we shall succeed in creating a fairer Dominion in which our children can proudly live.

Private and Government Planning



JACOB BAKER

Vice-President, The Econometric Institute Inc.

My function as I see it is to describe in some fashion the things that people can plan and the way they can plan through governmental agencies having power of regulation, legislation and taxation, and to compare or contrast that kind of planning with the planning of non-governmental agencies such as individual business enterprises and co-operative and corporate institutions. Some of the latter have certain qualities of near-sovereignty and legal privilege that is in effect the right of taxation. Roughly, the two divisions are distinctly and commonly recognized.

The commonly accepted goal of a well-managed nation with effectively operated industry is full employment. Full employment does not solve all the problems of nutrition and health, education and culture, but we are pretty generally agreed that it is the minimum basis of a good society, and that with it we can gain the other things we want. So I assume, as I suppose most contributors to this subject will assume, that full employment is the minimum for which we plan.

It would seem that everybody in America, perhaps everybody in the United Nations, has some idea as to the kind of post-war world we will have. Most people have a positive idea of the kind of world they want. A number of the agencies of government who have been directed by Legislative or Executive action to plan ahead are doing so, but only and properly so as to public work and public policy. No agency of Government has a mandate to plan the future industries of the nation. Each industry and each corporation must make its own plan. Likewise the states and the cities will have to make their own plans for themselves.

Thus, it is fair to say that every responsible organization, whether business or governmental, is properly concerned with planning. The extent of that concern varies with the pressure of circumstances. At a moment when every effort must be given to maximum production, the primary concern of every citizen and every business or other organization must be production. But there is, however, always some time, some energy, and some thought available for a long outlook.

Planning is a bogey word. In the last generation it has been used so much of governmental schemes, ideas and stop-gap enactments that it has lost some of its proper significance. A large part of the profes-

sional and business community think the word itself means, or is intended to mean, socialism. On the other hand, socialists, collectivists and other Marxists do not grant that planning can be done except by governmental fiat and edict. There is nonsense in both views.

Planning is the origin of all action. No act of any kind is performed without some prior organization of effort and of machinery. It may be bad planning. It may be inadequate. But the men of both business and government must both understand that we have had planning, that the expansion of the nations on this continent was planned, that the development of our large industries was planned, and that the layout of every village and hamlet, every manufacturing and metropolitan center, was planned.

Much of our planning heretofore has been secret; the promoter did not reveal his total intentions, the entrepreneur arranged for political privilege as part of his plan but did not reveal the whole. The end result of plans conceived in secrecy, built up piecemeal with contradictory elements by contending forces, was often not a good overall plan. Probably our best planning in the country has been done within integrated industries or within large corporate structures well defined by legislative franchise, where it was possible to reconcile the forces of contention. Some of our largest corporations illustrate this.

It has not been enough to plan for even the largest of our corporations. Business organization forms a network, and all the planning of industry and government, as well as the lesser planning of educational and cultural institutions, makes up national planning. Less than this is not enough. More than this leads in the direction of one of the breeds of totalitarianism.

Government has its part in planning. At times government, in response to the will of the majority and to those economic and social forces that determine the will of the majority, has shifted the course of the American Nation one way and another. That, of course, will happen again. If in the post-war period the United States undertakes large Lend-Lease reconstruction arrangements, we will have one pattern. If the United States Congress supports full employment and social security measures similar to those which the Beveridge report in England now recommends, a second pattern will prevail. And if the Congress reacts to a state of public attitude similar to that of the 1920's, the pattern will be still different.

Planning can not be static. It must be attuned to the acts of the sovereign political power. The rights, duties, powers and privileges which, taken together, make up property rights continually change, and we are in a period of rapid change. Thus we must plan for those changes. Indeed, every part of the American nation must exercise its due influence in making those changes.

So who is to plan? Business men; leaders of labor and agricultural groups; trade associations; government officials—all these must plan. Business men must exercise the fullest of influence so that the rules, the laws and the regulations are such as to insure free enterprise. Every other responsible leader must participate in that network of planning that eventually creates in the whole a structure with the maximum of freedom of productivity and of security for all.

During periods of great political, industrial or social crises everybody becomes fully aware of the fact that the world is or may be changing. Then men and organizations both want to plan life after the change. But just what is the change? How big is it? How complete is the movement from things that we have known to things to be?

One can speculate on every possible sort of change that may be made or one can assume that no changes will be made. If we do the first, the mind has nothing to grasp in decision as to plans for any extant institution. In the second, the mind has nothing to do because it can assume that everything will be as everything was.

The problem then becomes one of deciding, perhaps arbitrarily, but as wisely as may be, the extent of change and what will be the areas of human activity in which changes will be effected. Making that decision is the first step in long-range planning in crises.

There are a number of probable conditions in the economic world after the war which, while not in the class of facts, have reasonable probability. At the same time their uncertainties constitute reason for and a basis of speculation. In economic planning the speculation is both intellectual and financial. Nobody wants to plan in such a way that he simply satisfies his ideas and loses all his money. These probabilities will change from month to month and year to year, but the outstanding ones will continue to go far into the future life of this nation.

For one combination of economic forces, social circumstances and legislative acts, one plan will be better than any other. For another combination of the same forces, circumstances and laws, another plan will be better than any other. Thus we may say that planning is an exercise in the range of probability. The planner needs to examine the major elements that have a wide range of probability. It is useful to look at some of the fields in which this process is essential:

- (1) What parts of the country will have gained and what lost during the war? What are the continuing trends of shifting population within the country? What are the probabilities of population shifting among other nations and within other nations?

- (2) What will be the nature and the degree of solidity of the barriers of the totalitarian world? What will be the method and effective-

ness of United Nations' economic and social pressure upon those barriers? Under what conditions will the free world shrink? When will it expand faster and when slower? The reach of this free world is an important basic consideration for each planner in so far as it affects him, his organization, its products and its services.

(3) As industrialization increases outside this continent, how rapidly may we expect a shift in demand from consumers' goods on the part of foreign customers? What is the effect of shifts in internal population upon the demand for both consumer and capital goods?

(4) What is the effect of the changing money market upon the cost of money to industry? How can industry use governmental financing? How shall it control and influence governmental financing so that it shall not stifle thrift or choke adventurous enterprise?

(5) Changing utilities and transport facilities constitute great areas of prospective change in the generation to come, changes made in relation to population, demand the area of free economy. How can they be anticipated? As an example of one element to be examined, we know that the terminal facilities of present transportation systems are not matched up. The airports will need to be better bridged to local transport. Many present terminal facilities need to be reorganized or reconstructed to make efficient the combination of our roads, highways, barge lines, and air lines. What are the probabilities in this field?

(6) What government action could "create" new frontiers now? The answer depends partly on engineering possibilities. Improvement in transportation facilities has repeatedly opened new frontiers. Will the railroads and highways we are building in Africa and Alaska, open new frontiers? As another example, it may be found that if tunneling costs were sufficiently reduced, there are many areas which could be made inhabitable for surplus populations by diverting rivers from the wet side of a mountain range through the mountain to the arid side. What are the possible areas in which new frontiers will be developed by government action? Without government action? What is the nature of construction of highway, railroad, irrigation work, or other physical improvement that will create frontiers? What materials and supplies will be needed to build or maintain these frontier works?

All this illustrates the way the planner must examine the field of probability. He must establish the range in a dozen fields—perhaps more—sometimes less. To do this may be easy or it may require a considerable number of special studies and inquiries. But the probabilities must be weighed and conclusions formulated. It will frequently happen that the planner will need more than one plan. Two or more probabilities have equal weight. He needs a plan to fit both. Better than two plans is a plan so flexible and so geared that it can meet either eventuality.

How can we weigh any probabilities? By measuring as accurately as we can the forces and pressures of the moment and determining in what area or in what range the resultants of present forces and pressures will lie. This is trite, but it is applicable in any area in which one deals with probabilities. Economic forces are measurable in terms of criteria that can be established statistically. The process of multiple correlation has brought to economics some quality of the exactness that has been more characteristic of the physical sciences. The two are by no means on all fours, but there is a practical similarity.

Another method of forecasting economic change is by assuming that the pattern of the past will be repeated in the future. A good deal of discussion of the current war and post-war situation naturally takes that form.

A third method that may be used is to watch for divergences from previously established pattern and to determine what they mean.

Putting these three approaches together into a single statistical pattern involves finding the relationship between one series of events and another. For example a very detailed study of automobile demand with national income showed that a 1% change in national income resulted in a 1.5% change in automobile sales. This study, which was made in the United States some years ago, developed a clear correlation between automobile sales and national income. That relationship changed however, as national income increased. In the case of a nationwide group of department stores, a study revealed that for each 1% increase in national income, these stores received an increase of .85 in sales.

Assuming reasonable stability of price, availability of labor, and from interruption, it is possible for an individual business to determine what its sales, consequently, what its production and its employment may be, if it can figure out what will be the income upon which it depends for sales.

Now, if an industry in a community can do that, suppose that a number of industries within a community can do so. By that process it is possible to come to a conclusion as to the probable total employment in the community. We can construct a table for a community in which we break it down by industries and develop the prospective employment in each industry in relation to a prospective or estimated national income for each of the years considered. If the industry or business concerned is one dependent upon community life and activity, such as a department store, a bank or a local newspaper or service enterprise, we can then project the probable range within which the volume of that business will fall.

It is necessary to make a basic assumption as to the national income but making that assumption the following kind of table can be drawn up for a community. (See table on opposite page.)

TABLE I
EMPLOYMENT IN MANUFACTURING INDUSTRIES—New Town and United States

	1929	1937	1939	1940	1941	1942	1945-50 Average
BOOTS & SHOES							
United States	205,640	215,438	218,028	206,000E	216,000E	214,000E	240,000E
New Town	4,502	7,032	6,078	5,538	5,052		4,800
% of U.S.....	2.2	3.2	2.8	2.6	2.4		2.0
CLOTHING							
United States		692,526	751,379	755,000E	840,000E	865,000E	900,000E
New Town	2,182	1,928	2,160	2,132	2,506		2,400
% of U.S.....		.28	.28	.28	.30		.26
MACHINERY, not incl. trans. Equip.t.							
United States	1,102,837	949,525	779,447	879,000E	1,220,000E	1,560,000E	900,000
New Town	20,410	18,884	17,258	23,708	31,068		23,400
% of U.S.....	1.8	1.8	2.2	2.6	2.6		2.6
PRINTING, & Publishing & Allied Ind.							
United States	353,964	350,952	324,535	326,000E	335,000E	330,000E	370,000
New Town	1,486	1,888	1,640	1,171	1,864		2,000
% of U.S.....	.42	.54	.50	.52	.56		.56
TEXTILE MACHINERY							
United States	27,019	25,340	43,805				30,000
New Town	4,026	1,444	2,936	3,232	4,216		4,000
% of U.S.....	14.8	4.2	13.4				13.4
WOOLEN & WORSTED GOODS							
United States	146,959	149,795	140,022	137,000E	174,000E	169,000E	160,000
New Town	3,920	3,434	3,288	3,010	3,930		3,600
% of U.S.....	2.66	2.30	2.34	2.20	2.26		2.20
FURNITURE							
United States	334,171	310,449	293,570	310,000E	348,000E	325,000E	350,000
New Town	260	250	170	206	240		220
% of U.S.....	.078	.080	.058	.066	.068		.066
BAKING							
United States	200,841	239,388	230,706	230,000E	237,000E	250,000E	260,000
New Town	698	1,586	1,454	1,738	1,710		1,800
% of U.S.....	.352	.664	.630	.756	.720		.700
All Other—New Town...	25,152	24,158	18,162	22,044	28,002		28,000
Total—New Town	63,272	62,604	53,146	63,318	78,588	102,000	70,200

To what kind of post-war situation may we look forward? A few things are clearly before us:

- (1) large demobilization;
- (2) considerable requirements for goods for the relief of people in Europe and Asia;
- (3) a very greatly expanded capital goods industry and vast dearth of consumers' goods;
- (4) totally unprecedented individual savings.

I have spoken above of the relationship of sales of product to national income. We have very little knowledge of the effect of savings on spending. A recent study made by the Post-War Planning Committee of Albert Lea-Freeborne County, Minnesota throws some light on the problem. A cross-section of the city's population was interviewed to find out what goods they expected to buy during the first two years after the war, goods which were not available during the war.

A similar survey was made by mail among the farmers of Freeborn County, of which Albert Lea is the county seat. Farmers were asked to indicate not only what goods they intended to buy for their homes and families but also what items they expected to buy for their farm operations.

Purpose of this survey was to obtain an indication of what markets there would be for such commodities in Albert Lea and Freeborn county after the war. It was intended as a barometer of the amount of business which could be expected from this area.

These are some of the things these surveys showed:

Purchase of 1,156 new automobiles at an average cost of \$1,053 or a total of \$1,217,268 was indicated in the city of Albert Lea. Purchase of 1,140 new automobiles by farmers of Freeborn county also was indicated, with the average cost \$970 for a total expected expenditure of \$1,105,800.

Construction or purchase of a new house by 442 city people was indicated, with the average cost \$4,068 for a total of \$1,798,056. Construction of only 150 farm homes was indicated, with the average cost \$3,150 for a total of \$472,500.

Repairs costing more than \$300 to 714 city houses was indicated. Cost of such major repairs was estimated at an average of \$514, for a total expected expenditure of \$366,996. Major repairs to 540 farm homes was indicated at an average cost of \$900 or a total of \$486,000. Farmers also indicated they would build 360 barns at an average cost of \$1,473 or a total of \$530,280 and 360 silos at an average cost of \$539 or a total of \$194,040.

Similar anticipated expenditures were indicated on items ranging down in size to alarm clocks.

The question immediately arises "How are they going to pay for all these things they expect to buy? Anticipating that question, the committee making the survey asked each person interviewed to tell just how he did intend to pay for these things.

Analysis of replies from city families in the \$1770-\$2299 income bracket showed the percentage of estimated cost of post-war purchases to be financed by:

Current Income	38.2%
Borrowings	41.2
War bonds	8.9
No report	11.7

The average indicated expenditure by families in this income bracket was \$1,195. The same information was calculated for farm and city families in other income brackets.

In general, the families of Albert Lea expect that there will be wage earners in the family. In general, they expect to spend some of their savings on current purchases. The city families are much more ready to go into debt than are the farm families. This is obviously a very small sample of public opinion and intention. Much more widespread investigation of the effect of savings on spending is necessary.

It is interesting to note the behavior of people during the first years of the depression of the 30's. During those years, at all levels, people attempted to hold to their established standards of living and to keep up their expenditures to maintain those standards as far as possible. The sum is that we have reasonably good evidence that even with the dislocation of war ending, we may expect a very determined effort on the part of people generally to satisfy long-felt needs for consumers' goods, to attempt to buy the automobiles and the houses they will lack.

It seems safe to us in the United States to assume that for the first year after the conclusion of the German phase of the war, the national income will be 130 billion dollars or more, and for the second post-war year 140 billion dollars or more. Among our major premises are these:

(1) Exports of consumers' goods will continue high on a lend-lease basis for two years on a 5 billion dollar annual rate at least.

(2) The Federal Reserve Board Index of Production during the first post-war year will average 200.

(3) Demobilization will be slow.

(4) Government assistance to war veterans will be generous.

(5) The tens of billions of dollars of individual savings which have derived from our heavy war-time deficit spending will have a stimulating effect equivalent to what extremely heavy expenditures of a new WPA at the end of the war would have.

(6) The demand for equipment will be appreciable for at least 1½ years.

(7) Construction will be high in the first post-war year.

(8) Prices will first dip because of uncertainty, rise because of supply shortages, and then in the second post-war year gradually decline as supply is greatly increased.

(9) The working week will decline from 46 to 43 hours during the first post-war year and to 40 hours during the second post-war year.

(10) Wage rates will be down from 8 to 10% during the first two post-war years. Prices will be down from 5 to 10% during that time.

There is another way of looking at this whole prospect of the future. We in the United States can think of 18 million men and women released from the Army and war plants. We can omit calculation of the effect of past individual savings and we can assume that a chaotic depression will strike us. Some commentators, economists and analysts take this gloomy view. It can not be totally disregarded. The common people of North America will not accept the ravages of nationwide unemployment. They will demand that government shall sustain them.

Taking even the most optimistic view of the situation, there are functions that government must perform. These are functions of social security and of public works.

Some years ago we set up in the federal government in Washington a Public Works Reserve, the function of which was to stimulate states, communities and municipalities to develop programs of work that could be put into effect as manpower and local money became available and as the work was required by the people of the governmental unit concerned. That program was not fully developed, but it stimulated some of the states and other sub-divisions to work out their own programs. The scattered reports of those programs indicate a very substantial body of public work to be done. In the construction field it probably will exceed the construction labor, equipment and materials available. It will run into money—billions of dollars—spread over a 6 to 10 year period. That quite obviously is a very important function of government.

One consideration of great importance both to Canada and the United States is the demand on the part of industrial labor for increased leisure. Almost every collective bargaining contract of the last 5 years has provided for vacations with pay. Our calculation of the post-war pattern indicates a progressively shortening work week.

The same attitude is spreading in the farm population. It is being bolstered by the possibilities of leisure created by increased farm mechanization.

Most of the public construction of the past has been utilitarian. A vast amount of new public work will be required to provide facilities for the use of leisure time. This is peculiarly important to wide areas of Canada. The Ohio and Mississippi Valley are thoroughly uncomfortable for four months of the year. It takes no strain of imagination to visualize the movement of millions of people to vacation areas in the Rocky Mountains and in Canada every summer. Transportation facilities will be available, thus insuring quick transit, and with a high level of employment, the money will be available to pay for such vacations.

This is only one of the elements to be considered in public work programs of the future. This kind of public work involves both capital expenditure and maintenance reaching well beyond physical plant, maintenance of services meeting newly expressed needs.

It is well known, of course, that government can affect business and business planning and the lives of all its people through its regulatory and taxation powers. For example, pressure on hoarded funds will, in periods of deflation and depression greatly stimulate the release of money and effort for productive enterprises. A simple graduated tax on evidences of indebtedness, graduated inversely to the period of the debt, would put pressure on money to become venturesome and should greatly stimulate productive investment. This is only one of several ways in which government, by planned sanction and regulation, can affect the economy.

There are wide fields of effort in which combination of private enterprise and government sanction may be essential. In fact, in these areas the burden of government may reach beyond that of sanction or authorization. An example is the blighted areas of our modern large cities. There we must find the money to aggregate the land, develop a plan that is unquestionably in the public interest, and find the managerial skill and enterprise to develop the project. Other great fields of reclamation, conservation and redevelopment will come to mind.

In the past three decades there has developed a great increase of professionalism both in business and in government. The expert has come into use. He is not yet fully skilled in being expert, but both in business and in government, he is very good. On the whole, governmental experts are not aware of business experts. The same thing is true on the business side. This field of planning is one in which joint effort by the experts in both fields is essential. Obviously planning runs well beyond planning experts. The expert administrators of government and of business must both be convinced that joint effort will bring joint success. With that conviction and simple, steady, patient effort we can go far toward the goal of full employment.

Land Policy



WILLIAM MacROSSIE,

President of the American Institute of Real Estate Appraisers

The subject of land policy as discussed here is the matter of formulating a consistent body of attitudes towards all public questions that affect the ownership, the use, taxation and the regulation of land. Of course whatever our attitudes are toward the treatment of land, they make up our policy whether they are a consistent and constructive body of attitudes or not, and the idea that a land policy is a kind of innovation is seized upon by us because unfortunately the attitudes we have taken toward land are not constructive and consistent. In Canada and the United States capital is not in any great amount availing itself of the seemingly attractive investment opportunities in the central business districts and in blighted areas. The best informed minds in our countries are seeking a solution of this problem.

It is, however, necessary to understand the causes which have created the problem before we can find the cure. This is a field in which the real estate appraiser has been trained. He should play an important part in post-war planning.

Real estate appraisers in the process of estimating value recognize the necessity of looking into the past, knowing the present, and forecasting the future. It is no mean task to estimate the future worth of the benefits arising out of ownership. Value is found in the market place. It is the informed buyer and seller of today who determine the value of real estate. The appraiser must know why desirable residential and business sections of yesterday have become the blighted areas of today. He must be able to forecast the probable future economic life of new communities.

We have heard much of the decentralization movement which has attacked our cities. Obsolescence is a cause of decentralization. It is a movement of people, business or industry from the overcrowded and aging sections of metropolitan cities to the suburbs, where home owners find more room and neighbors in their own social strata; where business and industry can function more effectively and economically.

The increasing victories of our joint war effort daily give us new cause to take pride in our superb industrial system. When we built it up for the normal demands of peace, we geared new production to replacement as well as to new demand. We have learned to replace everything that wears out in any orderly and systematic way; everything, that is, except the improvements we put on our land.

Until recently land occupied such a favored spot in our economy that those who had special interest in it had little concern over the future. But now, after the passing of our geographical frontier and the attainment of maturity by many of our cities—including in some cases not only maturity but approaching senility—we begin to wonder concerning this status of land.

In another respect land constitutes one of our principal resources. Not only does it represent a resource, but, as we look backward and compare what we see, with what we know at the present, we come to understand that, as any resource, we have exploited it with little thought of conservation. We have dealt with our resources in a most prodigal manner, as, in the case of lumber, instead of "cropping" the supply we "mined" it. We used only the cream of the resources until suddenly we found ourselves confronted with a dearth of both cream and skim milk.

Our employment of land has not been dissimilar. In urban areas we have deemed it more expedient and more economical to abandon partially used land in favor of new supplies at the periphery of growing towns. We did not stop then to reason that such process could not go on endlessly, but now circumstances force us to face the facts.

The factor of obsolescence has been worked into our corporate finance, into our tax systems, into the practical operation of our private businesses and personal affairs, but we have yet to recognize it as a reality in improvements on the land. This, too, is a component of our present land policy.

The causes of obsolescence are numerous. Buildings start to depreciate on the first day of occupancy. In time they lose their utility and desirability. Neighborhoods also grow old. Neighborhood obsolescence is even more important and serious than building obsolescence and the rate of decline is often more rapid than in the physical structures. Buildings often have a life of two to three times that of the neighborhoods which surround them.

When blight is mentioned, most people think at once and only of obsolete buildings. It is true that these are surface evidences of blight, but what is not quite so obvious is that there are at least two contributing causes for the blight. The first of these causes, and the only one considered by most people, arises from the inexorable processes of obsolescence of buildings. The second contributing cause lies deep in the inadequacies of the design of the cities themselves.

In dealing with that type of blight which results from obsolescence it must be realized that obsolescence is not produced solely by length of use. If Lincoln's crude log cabin birthplace was newly duplicated today in Times Square in New York, it would be obsolete from the moment the last shingle was put on the roof. In fact, it is conceivable that an ultra-modern plastic and glass residence located in the midst of the Chicago stockyards would also be obsolete from the moment it was completed. Such, in fact, is almost literally true of much building improvement in many of our cities notwithstanding that the original utility built into them has not yet served out its full life.

The fact of the matter is that cities generally have merely expanded from an original nucleus by exactly the same process through which coral reefs are formed—merely the addition of numberless units to the periphery of the old. There is no standard design in such a mass. The process goes on until the interior proceeds to rot through sheer inability to function. The biological growth of a city is almost identical to that of a tree. There is an ever expanding outward layer which is alive, but the constantly enlarging body of the trunk is dead.

Thus far the only means employed in an attempt to cope with these conditions have been those resorted to by individuals. There need here be no elaboration of the conclusion that individual effort in the future cannot possibly be any more successful than it has been in the past. The disease of blight that has taken hold of our American cities is an organic condition common to the community as a whole.

Even if it were conceivable that a substantially blighted area in a given city could have all of its defunct improvements simultaneously obliterated and suddenly replaced with modern structures there would still be serious question whether that accomplishment would eliminate the blight. Momentarily it might be apparent that a change for the better had been accomplished, but the improvement could not possibly persist for long because the basic causes for the original blight would still remain, and would exert their inexorable forces to repeat the blight, but in a far shorter period than was necessary originally.

For an individual to attempt, by personal and unrelated improvements, to raise the standard of a blighted area by introducing isolated modern building units could not possibly prove successful because the quality of a building is not alone contained within its walls. The surrounding environment which is necessarily the contribution of the community as a whole and not of the individual is the quality that makes for permanence of value of a location or of the improvements upon it. For an individual to place a modern improvement in a blighted area and expect it to lead to a renovation of such area is the equivalent of placing a shiny, crisp good apple in the middle of a barrel of rotten ones. No good apple has ever made a barrel of sound ones out of rotten apples, but any farmer can tell you that one rotten apple in a barrel will soon ruin the whole. The life of neighbourhoods will continue to shorten unless far sighted steps are taken to preserve them.

The automobile has played its part in the decentralization move. Before the start of the war we were rapidly reaching the point where every family could own an automobile. Working hours were shortened giving more time for the use of the family car. Improved highways made it quick and easy to drive to work. The lack of adequate parking space, however, in our inner cities stimulated the growth of satellite shopping areas, thus taking retail purchasing power away from the older sections. The suburbs became the preferred place in the minds of many city residents and business men, to live and to shop and to work.

Many lines of business and industry followed the migration of people from the inner cities. Operators and developers bought at reasonable prices large tracts of land near the cities. In the automobile age they were not tied down to the railroads. They subdivided the land and with PHA approval often marked up the prices of the lots.

Contrast this situation with the assembly of land in the slums. Not only is the land held at high prices but the purchaser must also pay for buildings which will be demolished.

The high priced land requires intensive development to be economically profitable. The evils of congestion are self-evident. There is no more fundamental human requirement than the need for a little elbowroom and breathing space. Yet we have made our cities the habitats of cliff dwellers by piling the people up in warehouses. The rapid industrialization of our cities accompanied by phenomenal population growth, with only limited transportation facilities, brought us to this. It became so much a part of our land policy that we continued to build up in the air and to overcrowd our land even after undreamed of improvement in transportation had eliminated the basic incentive for intensive use of land.

The result of our mass movement out of the inner city was that the cities lost to the suburbs many of the citizens who were best able to pay taxes. Those remaining could less well afford to pay taxes. The commuter living in the suburbs but working in the city bore none of the cost of city government. The more people that moved, the greater the taxes to be borne by those who remained. A striking example is a home which cost \$25,000 and which recently sold for \$8,000. The taxes were \$600.00. Next door, just outside the city line, the tax on a more desirable residential property was \$100.00.

The central cities contained a high percentage of old decaying properties. People in the lower income groups can not afford to spend as much in taxes but require more services. The cities with a declining income are faced with increased cost of municipal services. New York City in 1938 spent more on relief than the 1910 City Budget. The total New York operating budget for 1909 was \$110,469,000, but by 1938 it had increased six-fold to \$644,204,000. The operating costs of other cities in the state increased in the same proportion. Chicago spent more in 1930 than in the period of 63 years from 1840 to 1903.

Of all modern governments, only those of North America sanction the taxing of land in a capricious, punitive, and even superstitious manner. Although we have been nurtured in a basic concept of taxation as support of government in direct relationship to the ability to support, we abandoned this in the taxation of land. The reality is that the ability of land to support government can be derived only from the ability of land to produce earnings. That seems simple enough, and it is the practice of the whole modern world excepting our own countries. The closing of our eyes to this reality is our land taxation policy.

The unwillingness of tax authorities in cities in the United States to recognize the effect of taxes on real estate values has been one of the prime causes of the blight which has attacked so many of our communities. Excessive taxes have been the knock-out blow in many cases.

Students of taxation have awakened to the fact that there are fundamental errors in our taxation policy which must be corrected. They can no longer hope to solve the taxation problem by face lifting devices and the previous practice of treating the symptoms of the disease rather than the causes.

In the United States the National Council of Real Estate Taxpayers are advocating that the basis of real estate taxation should be the productivity of real estate; in other words—the value in use of real estate should be the yardstick by which is measured its taxable value. England, as you know, taxes real estate only when it is occupied. Two taxes are assessed on real property; one by the central government which is an income tax based on the rent paid for its use or occupancy. The second is a local tax and also is based on the rental value. In both cases the tax is the same, whether leased to a tenant or owner occupied, in which case the rental value on comparable properties is the yardstick. In general, no taxes are assessed against property if it is not in use. This system is also open to criticism. It is interesting to note that in the December, 1943 issue of the Incorporated Auctioneers Journal we read—

“The owner of real property has not been in an enviable position since the Rent and Mortgage Interest Restrictions Acts came into being at the time of the last war. What is worse, no effort is made by Legislature to remedy the injustices, nor is there even any sympathy with the individual who has put his money in “bricks and mortar”.

As net income disappears, so does value.

Assessment is simply the appraisal of land for purposes of taxation. In the appraisal of land for other purposes appraisers, under the leadership of the American Institute of Real Estate Appraisers, have succeeded in developing what is called the Appraisal Process, which if intelligently used, will lead to a reasonable estimate of value. This organization prides itself on the professional quality which it has fostered, and the rational process of arriving at value it has developed, but all this must go by the board when the appraisal is made for the particular purposes of government.

It can not be said that this happens because the appraisers for Government—the assessors—do not know or can not be taught the technique of arriving at an estimate of market value. Rather it happens because we literally force them to be incorrect and unscientific in our “land policy”. Part of our attitude toward land, and that which stands upon the land, is that it should alone bear the bulk of the cost of local government, and this despite the fact that most of our municipal services are to people and not to property. As our urban existence has

become more complicated, we have continually called upon our local governments to perform a more varied catalog of services, and we have consistently insisted that they increase the standards of these services.

This means that the cost of running our cities has consistently gone up. The city needs so much money in the till to keep solvent. The constitution and charters have set rate limits for taxation, and thus the appraisal of property—the assessment—remains the only flexible element. Our assessors then are forced to discover values that will produce the required revenue when multiplied by the tax rate. Scientific formulae for discovering true value have little to do with it. This is not equity and it does not make sense, but it is part of our land policy.

Closely associated with the problem of taxation; and indeed part of it, is tax delinquency, with the inevitable ownership by the government of an increasingly large volume of real estate. In an address before the National Association of Builders, Owners, and Managers, in June 1943 the statement was made that “nearly one-third of our nation’s entire area is owned by government and a major part of this has been caused by tax confiscation of property”.

There are in the States a very strong group who would remove from the tax list large quantities of additional land upon which they would construct low cost housing projects. Before we entered the war, the government of the U.S. appropriated hundreds of millions of dollars for slum clearance projects in suburban areas, where private enterprise can and does a better job at a lower cost and in addition pays taxes on all such improvements.

The problem of real estate taxation is further complicated by the increasing volume of tax exempt properties. In the U.S., according to the Census Bureau, in 1936 in 52 large cities tax exempt property was equal to 22% of the value of all of the real property taxable and exempt in those cities.

These practices and the policies which underlie them, closely interwoven as they are with other public policies, with economic conditions, and with social institutions, have brought our cities to a truly critical period. In the areas where land is put to its most highly developed use—the cities—we are faced with complete disorganization, with unsound basic structure, with a threatened breakdown of the organism that traditionally has been a civilizing influence in the locale of cultural and economic opportunity.

Elements of a New Land Policy

For purposes of this discussion we can divide the real estate into three general groups:

- (1) Blighted slum areas
- (2) Communities in middle life, and
- (3) The community of tomorrow.

CLASS 1—the community in which blight has spread to a point where all the improvements should be demolished. The leaders of the

National Association of Real Estate Boards in a recent release have presented for discussion the outline of a plan for the redevelopment of blighted areas in our cities.

The plan contemplates an amendment to the Federal Income Tax law which would exempt from levy capital invested in bonds of municipal redevelopment corporations. These bonds would run for approximately 100 years and would pay 1.3%-1% to liquidate the investment, the balance for servicing the bonds. The plan has two fundamental points:

- 1—that necessary public operation involved in rebuilding American cities should be carried out completely on a local level through municipal redevelopment authorities under local control and not dependent upon the Federal government.
- 2—that necessary low rent housing for low income groups can be built by private initiative and should replace present public housing programs.

The plan provides for the payment of full local taxes in the redeveloped areas.

CLASS 2—The continued aging of a neighborhood in middle life can not be stopped but its rate of decline can be slowed down, at least sufficiently to give owners time to amortize their investment.

These neighborhoods are usually located in the area circling the centers of our cities generally with large buildings constructed thirty to forty years ago. Steps can be taken to stabilize these areas, community spirit increased, the infiltration of undesirable or inharmonious groups prevented, and pride in the appearance of the buildings in the community created. In other words, in such areas any buildings which have reached the end of their economic life, or because of their use, detract from the desirability of the neighborhood, should be demolished and the land used for parks, playgrounds, etc., and protective restrictions where possible be entered into by property owners in the community.

CLASS 3—The neighborhood of tomorrow. A study of the history of our cities shows that originally there were in the area of the present cities distinct and independent neighborhoods. These neighborhoods in time and with the growth of our cities have become matted together.

The neighborhood of tomorrow must have plenty of land. The tendency will be to go away from established lines. They should be like the neighborhoods out of which the present cities are made in that the through traffic should be routed on the fringe, the schools and neighborhood community buildings in the center, the interior streets so arranged that unnecessary traffic will be discouraged. In other words, an adaptation of the present County of London plan, including if possible the green belts around the communities. The most successful of such new neighborhoods would be those so located that within a reasonable distance there is land adaptable for industrial and factory use.

Referring again to the manner in which cities have grown, it may also be restated that the process of accretion has left the community completely devoid of any functional design.

The term "functional design" may be meaningless to one having no conception of either physiology or physics. The term may, therefore, be explained by an example in each field. One need not be a physician or biologist to have a reasonably clear or accurate understanding of what constitutes the circulatory system in our own human body. The arteries and the veins are designed as to size in exact proportion to the volume of life blood which they carry. Thus they are large at the heart and terminate at the extremities and in the flesh of the body as microscopical capillaries. If it was otherwise the circulation would become so sluggish that gangrene would set in and the body would perish. In a very real sense that is literally one of the things that is happening to cities.

It follows as a consequence that any program of redevelopment cannot possibly be successful if it is limited exclusively to cutting out grangrenous tissue if, at the same time, nothing is done to cure the conditions that produced the gangrene in the first place. It is possible that the failure of programs under the New York legislation are at least partially attributable to the fact that they make no provisions for changing the relationship of a redevelopment area to the community as a whole, but merely contemplate a temporary replacement of the physical decay.

Turning to the field of physics to illustrate another point, it is known that in the realm of mechanics there is a size for every mechanism that proves to be most efficient and economical in operation. If machines are designed larger than the ideal proportions efficiency decreases and cost increases. If they are designed smaller than the ideal size the same thing happens. There is one machine known to all that will serve well as an illustration—the typewriter. There have been typewriters made solely for advertising purposes of such huge size that they have been entirely useless except for publicity purposes. In the other direction there are small portable typewriters available which admittedly compromise the element of efficiency and quality of work for the sake of the convenience attendant upon portability. For practical commercial purposes, all manufacturers have developed the standard model.

This we have not done in designing and building our cities. In fact, we haven't designed cities at all. If we did in the field of typewriters what we have done in the field of cities, a business institution, having need for greater output than could be produced by the one standard typewriter in their office, would seek to purchase a bigger typewriter. Of course, in actual practice there would be no increase in output although there might be a decrease in the quality of work produced. What actually happens is that a business house, having need for more typing than one machine can produce buys a second machine of the same standard proportions, then a third, and a fourth, and so on. But in cities we content ourselves with a machine of ever-increasing size.

Part of the phenomenon of urban blight is undoubtedly attributable to the perfectly natural breakdown of these huge municipal machines. One evidence of this is the phenomenon of decentralization, and a more advanced symptom is the crystallization of the huge urban area into increasingly defined satellite units, including new self-contained and well-balanced units at the periphery.

Here again we find reason for understanding that any program of urban development, if it is to prove successful, must recognize the need for comprehensive design that will reflect the limitations of mechanical laws and all other controls that make for efficient functioning.

It is not necessary that we shall reconstruct the whole with one fell swoop, but it is essential that we shall determine in advance the general pattern of the replanned and redeveloped community which is to become our goal. This all means, in effect, that when we speak of urban redevelopment and land assembly and acquisition to make it possible, we are really considering progressively scrapping what we have, melting it down and recasting it into a new mold.

There are some who voice objection to such proposals on the ground that we cannot afford to scrap what we have—that it will cost too much. The answer to that objection is that whether we scrap it consciously or not, scrapped it will be inevitably. It is already being scrapped and the evidences of it are what we call urban blight. As to what we call expense, nothing could possibly be as expensive as to continue maintaining the vast areas of blight or downright rot that is typical of so much of the area of our average American city.

Human legislators, fortunately, cannot either repeal or amend the law of gravity. Neither can their legislative gymnastics ever hope to improve conditions if they do not make full provision for recognizing equally unchangeable laws.

In the realm of urban development this means, first, that the whole of a community shall be comprehensively planned from a functional standpoint. This will of itself, through such mediums as providing free-ways and other major public facilities, give pattern to the whole.

Next in turn it will become possible thus to break down our grotesque great urban masses into "standard typewriters" which may be individually designed and made the objective of individual redevelopment projects. All of this involves the more efficient utilization of land, and when land is thus treated it naturally assumes a permanent functioning quality that will be reflected in use value of interest both to the individual and the community. In some of our more advanced communities, such as New York, Milwaukee, Portland and Los Angeles this comprehensive approach is definitely being employed.

Current efforts towards securing state legislation to delegate the right of eminent domain to private corporations on the subject, contemplate the retention of this power solely in units of government and to have it employed progressively in connection with redevelopment projects that have been naturally defined through recourse to comprehensive replanning. There too, it is contemplated that actual re-

development will be made the responsibility of private enterprise, but not private enterprise solely in the form of great corporate units granted special privilege and whose efforts will be directed mainly to housing projects solely of the human filing cabinet type.

It is intended that redevelopment projects, although utilized where necessary to eliminate substandard housing, shall also include areas of unused lands in order that through redesign they may be finally brought into useful service. Redevelopment of industrial areas likewise are planned in these programs. Above everything else it is contemplated that the easiest projects shall be undertaken first, so as best to assure both financial, administrative and social success.

Out of such experiences it is anticipated that further lessons will be learned. It has taken over a century to produce the present chaos so that if it requires several decades of experimentation to remedy it, it should not prove to be particularly discouraging.

Generally speaking, the outlook justifies optimism. But through the whole fabric of the problem runs the inescapable theme that land is assuming the status of an utility and not a commodity. In plain English this means that the exploitable value of land which has become practically non-existent may never return. Therefore, if the realtor is to contribute effectively towards the establishment of a real land policy it will have to be done in the knowledge that a new phase of land economy has already come upon us nurtured by the practices of the past.

The Growth of Physical Planning



By JOHN BLAND,

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Physical planning, however desirable or needed, cannot be adopted at once. It develops slowly and the body of legislation or custom regarding the use of land that eventually becomes known as an accepted physical plan is the result of slow accretion. Britain began sooner and has gone further than we have, and perhaps the history of her development will make us aware of present and possible trends in Canada.

The growth of the idea of planning in Great Britain is the history of an effort to improve housing conditions which has expanded from houses to districts, to cities and recently to the whole nation. About the middle of the last century the bad housing conditions that were the result of the industrial revolution and uncontrolled speculation roused public concern. Through the efforts of Lord Shaftesbury local authorities were given the powers of inspecting houses, and the power to build common lodging houses. This power later became a responsibility, but even then action was desultory and a subsidy was introduced as an encouragement. With the expenditure of public money upon housing there arose a feeling that it was necessary to control the factors which contributed to good housing. This was the beginning in Britain of what is known now as town planning.

In 1875 the local authorities throughout Britain were given the power to make building by-laws and to regulate not only the quality of construction of houses, but the spaces between them. This is the introduction of the idea of the police power over buildings and the control of the density of houses. By a further law in the same year cellar dwellings could be prohibited at the discretion of the local authority. Since 1879 the owner of a house has been responsible for maintaining it in a proper habitable condition, and the local authority has had the power to compel him to repair or demolish his house. Local authorities since the same time have had the power to clear and reconstruct unhealthy areas. This is really the power of compulsory purchase. These powers were supposed to improve housing conditions by disallowing the worst types, but they were found insufficient to meet the need and in 1890 local authorities were given additional powers of actually building houses for the working classes.

The legislation of 1890 united the previous powers, provided for clearance and improvement schemes with the payment of compensation, and further gave the local authority the responsibility of rehousing at

least one-half of the original inhabitants of a cleared area. It also provided for the removal of obstructive dwellings in order to carry out improvement schemes, that is to say, a dwelling did not have to be itself insanitary to be removed. But what was perhaps most important, this legislation empowered local urban authorities to erect workers' dwellings independently of clearance schemes, and gave them the right of borrowing and compulsory purchase for this purpose.

The Metropolitan Board Works Act of 1875 was also indicative of the widening conception of town planning. This act provided for street improvements and new highways through London, and was the parent of most British legislation regarding the construction and layout of roads. Shortly afterwards local authorities were given the power of acquiring and laying out open spaces as parks and cemeteries. This is a further development of planning power.

In 1909 the word "town planning" is first mentioned, and an act of Parliament of that time introduced the modern conception of town planning and placed housing in perspective as one feature of the general fabric of towns. This act provided power for all urban local authorities and rural district councils to prepare schemes for the control of development in areas likely to be used for building purposes. The schemes needed the approval of the Local Government Board which afterwards became the Ministry of Health before they could be put into force. The object was the securing of proper sanitary conditions, amenity and convenience. It also gave local authorities an extension of their power of acquiring open spaces, this time, for recreation grounds.

In 1919 an act was passed which dealt again mainly with housing, and introduced an important new principle. Its object was to accelerate the provision of the large number of small houses required after the Great War and for the first time it was made a positive duty of local authorities to meet the housing needs of their districts to the extent that private enterprise was not doing so. For all schemes under this act a maximum density standard of 12 houses to an acre in urban areas and 8 in rural was set up. Government subsidies were provided to local authorities to meet the losses which were incurred by building at a time of high cost of labour and material which had completely discouraged private investment; but another act in the same year extended the housing subsidy to private builders and made provision also for the acquisition of land for the purpose of creating garden cities. The idea of town planning was still growing.

The act of 1919 also required urban areas that had a population of 20,000 to prepare schemes for the undeveloped portions of their districts. These schemes were to be completed by 1926. It also enabled local authorities to form joint town planning committees. These were at first advisory, but later many of them became executive, inaugurated comprehensive surveys, and produced valuable reports.

Building conditions in 1919 were abnormal. The subsidy had to be varied with the cost in particular areas, and this proved to be un-

workable, and in 1923 the subsidy to private industry became a fixed grant per house. Local authorities were given control over the subsidy and they were also empowered to augment the national grant from their own revenue. This act widened the planning powers again and gave authorities the right to control land which had an aesthetic or historic interest, whether it was developed or not. In 1924 local authorities were again given the power to build and to manage houses for the working classes. Subsidized private housing was not obtaining the results expected.

Later in 1926 a further effort was made to improve housing conditions in the rural areas. This enabled County Councils to assist by grant or by loans the improvement or conversion of existing houses for the use of agricultural workers. In 1932 subsidies for normal housing were discontinued, but three years later a rehousing subsidy was re-introduced which dealt especially with the relief of overcrowding and set up for the first time a legislative standard for overcrowding.

In harmony with the development of the powers of Urban or Rural District Councils regarding housing and town planning, County Councils were given powers to participate in the preparation and administration of planning schemes covering their areas. County Councils had also the power to take over the planning responsibility of local authorities under their jurisdiction.

In the national field the National Trust was set up to obtain the preservation of places of natural beauty and of buildings of historic or architectural interest. The Trust had funds to acquire and to maintain such properties on behalf of the nation.

In 1932 the whole of England was brought under planning control by an act which repealed all previous laws relating to town planning and greatly enlarged and extended the powers previously granted. The Ministry of Health was named the executive authority. All County Councils, Urban and Rural District Councils, were required to prepare schemes. Schemes were to be made with respect to all land, whether there were or were not buildings upon it, with the general object of controlling the development of the land in the area to which the scheme applied. It was to secure proper sanitary conditions, amenity and convenience, and to preserve existing buildings or other architectural or historic monuments and places of natural interest or beauty.

As a result of unsatisfactory development along new highways, which greatly interfered with the efficiency of motor transport, and was also unsightly, an act was introduced in 1935 to restrict what was called "ribbon development". This act was a planning act, to be administered by the Ministry of Transport. It gave the Ministry power to prohibit the erection of any building other than an agricultural building within 220 feet of the middle of any classified road, or any unclassified road by resolution of the local highway authority with the approval of the Ministry of Transport. The act also required the local authorities to acquire parking spaces for motor vehicles and to maintain them. Thus a planning authority controlling a complete network of roads, became national in scope.

The war damages have altered the course of the development of the idea of planning in Britain. There is now a widespread interest in the reconstruction of devastated areas and industrial and agricultural planning. In 1942 the control of planning passed from the Ministry of Health to the Ministry of Works and Planning. This is significant of the change from a consideration of health and sanitation to the present-day idea of national planning, physical, social, and economic. Three recent reports, the Barlow, the Scott, and the Uthwatt, have done a great deal to orientate public opinion toward the new concept of national planning.

The Barlow Report was the result of the work of the Royal Commission on the distribution of the industrial population and it was published in 1940. The report emphasized the importance of the long term social and economic view. It pointed to the decentralization and dispersal of industries and population from the congested and overgrown cities in order to secure a better balance of industry and population in the various regions of Great Britain. It suggested setting up a national planning authority.

In October 1940 Lord Reith was appointed Minister of Works and Buildings and charged with the duty of reporting to the Cabinet upon appropriate methods of dealing with the reconstruction of town and country after the war.

The problems of compensation and betterment were given to an expert committee under the chairmanship of Mr. Justice Uthwatt. This committee published an interim report in 1941 and recommended that the March 1939 values on land should be regarded as the selling value for purposes of public acquisition; that a central planning authority should at once be set up and given powers to control the development by reference to national considerations and to prevent any prejudice to reconstruction; that reconstruction areas should be defined, and rebuilding be not permitted within them except under license from the central planning authority. The Government accepted Mr. Justice Uthwatt's report and set up a council of Ministers immediately. At the same time an expert committee on land utilization in rural areas was recommended under the chairmanship of Lord Justice Scott.

The Scott report is a plea for the protection of the land resources, and particularly agriculture, in Britain. It also points to the need for planning to look after the national interests and the need to control the damaging effect of the spread of industry in rural areas. It recommended also that all agricultural buildings should come under planning control; and improvement of rural housing, including the extension of electricity, gas and water services throughout the rural areas. It suggested the building of village halls and playing fields. It pointed to the necessity of drawing rural and urban people together and making it possible for the townsman to get to know the whole of the countryside by an extension of the footpaths and bridle paths in Britain. It asked for a park the whole way around the coastline, which might include nature reserves and holiday camps. This it suggested could

be constructed after the removal of the temporary defence works. The report also suggested a comprehensive plan for the railways and arterial roads. It also pointed to the necessity for a central planning authority and it suggested that there should be a separate planning commissioner for Wales and one for Scotland. It asked for a five-year plan, acknowledging the fact that planning must be a continuous and evolutionary process.

The final report of the Uthwatt Committee, which had been set up to make an objective analysis of the subject of the payment of compensation and the recovery of betterment in respect to public control of the use of land, considered ownership pooling and nationalization and other land policies that have been suggested from time to time. The Committee's recommendations were based upon two assumptions: first, that national planning was intended to be a real and permanent feature of the internal administration of the country, to ensure the best use of land in order to obtain the economic efficiency of the community and the well-being of the individual; second, that the assistance necessary for effective reconstruction was national planning with a high degree of initiative and control by the central planning authority acting upon organized research and backed by national resources. The recommendations were stated to be directed towards a permanent solution for planning problems, to secure where property is taken compulsorily, fair compensation, and to make recommendations capable of immediate adoption without interfering unnecessarily with the economic life of the country or with individual enterprise. The Committee recommended that the state should acquire the development rights on all land outside built areas, and that a lump sum for the whole nation should be set aside and divided among the owners whose land was ready for development in proportion to the development value of the land in 1939, and that the development rights should be coupled with the power of compulsory purchase of the land itself whenever it should be required for public purposes or for approved private enterprise. By this means the control of development would pass from the land owners to the state, but the land would remain in the hands of the owner to be used as he likes, but not developed; when the state might wish to make it available for development the state would purchase the land at a fair price and lease it to a private developer, which might be the former owner or anyone else. In the opinion of the Committee this scheme of the control of land would make positive planning possible.

The Uthwatt Committee recommended with regard to built-up areas that planning authorities should have the power to buy compulsorily war-damaged buildings or other obsolete and unsatisfactory properties needing reconstruction as a whole, and all land not being developed in accordance with a planning scheme, with a view to development themselves, or by approved private enterprise; and that land once acquired by the public should be disposed of by lease only and not by sale. The Committee recommended that the principle of compensation for land or buildings acquired by the state should be based upon the market

value of March 1939, and that in future 75% of the increase in developed land value should be taken by the state and figured with the assessment every five years.

These reports have given the English people some idea of what is involved in national planning: whether the reports are implemented or not remains to be seen. On this continent where land is not so limited as it is in Britain, this form of planning is hard to imagine. Nevertheless, the experience in Britain may indicate a trend even for us, because if our total land resource seems unlimited, the areas around our towns and cities are limited and need control in the public interest.

In the United States the conception of physical planning has also grown slowly from many sources. The modern idea of planning in that country is essentially comprehensive planning and should be distinguished from the earlier partial planning or planning of specific elements in the community pattern without complete correlation with the remainder. This growing together of various considerations regarding the physical environment, the planning movement, is in many respects similar to what happened in England and what may be happening here.

With the rapid development of America there grew a feeling of fright that the unlimited wilderness that was symbolic of so much in the country would disappear. This produced the movement for conservation, and great national parks were set aside to preserve for the future some aspects of America as it was. The park movement was expressed in cities also by the reservation of large or small areas in an almost natural state. Montreal mountain layed out by Olmstead, is an example of such a nineteenth century American city park. We have also examples of greater areas of conservation such as Jasper in British Columbia and the Laurentide in Quebec.

Towards the end of the nineteenth century there was a considerable interest on the part of civic-minded groups in housing and public health. This produced an awareness of town planning problems at least with regard to laying out new suburbs. As a result of the attention drawn to these problems and the stimulation given to monumental civic design by the Chicago Worlds Fair of 1893, a number of cities commenced to plan civic centers, boulevards, and splendid new extensions. In this way the so-called city beautiful movement arose with an emphasis upon the aesthetic aspects of city planning. Perhaps because the movement started in Chicago it developed most rapidly there, and the plan of Daniel Burnham prepared under the auspices of the Commercial Club of Chicago 1906-08 was exceptionally farsighted. It was based upon comprehensive studies and was indicative of present planning developments.

The first National Conference on City Planning was held in Washington D.C. in 1909 under the sponsorship of the New York Committee on the Congestion of Population. Thus the social side of planning was added to the aesthetic and the earlier idea of conservation. The most important developments in planning in the last thirty years have un-

doubtedly been in the social field combined with conservation on a regional scale. The work of the Tennessee Valley Authority is the spectacular example.

In short the development of modern planning in the United States commenced with cities, then counties, and within the last ten years state planning agencies have been authorized by law. There was also an endeavour towards national planning with the President's appointment of the National Resources Planning Board, since disbanded by vote of Congress in 1943. The trend in the United States as in England seems to be towards a broadening of the idea of planning to embrace physical, social and economic matters on a regional if not national scale.

In Canada the experience of wartime controls and the expected plan for reconstruction and rehabilitation will accustom us to the idea of planning and a familiarity with the operation of plans in other countries will perhaps help us to develop useful, workable plans to cover our own needs.

Regional Planning



By JOHN BLAND,

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Regional planning is a method of measuring and controlling the various conditions, trends, and needs in a given area in order to secure efficient and pleasant development.

In England and the United States this form of planning began in an attempt to deal with problems which involved a number of communities. It developed out of specific planning such as the planning for main drainage, flood control, or a highway system. In practise it has been found far better to make planning comprehensive. An overall consideration is necessary to prepare specific plans and an overall control is often necessary to obtain satisfactory operation of a plan.

The first problem in regional planning is the definition of the region. The core is usually clear enough, but the boundaries are generally obscure unless the region is a neatly geographic one. There will always tend to be some overlapping. The boundary will be a compromise line and is unimportant in itself. To determine a region it is necessary to define the nuclei of important economic, social or physical influences and to trace the limits of their influence, for instance the area of an electric power utility or the circulation of a newspaper. For simplicity in administration the nearest political boundary may have to be adopted, but in America the political boundaries are often most arbitrary and are in themselves one of the obstacles to planning. The old method of using a river as a dividing line between two areas when it is really the core socially and economically of its valley, is an example of a political boundary which is of no use to a regional planner. In practice the ridge of highland between two valleys is a far better geographic line. It frequently coincides with an economic and social boundary based upon soil and water resources. The meridian lines and other cartographic conventions which are sometimes used as political divisions in this country are the ones of least value and most hindrance to a planner.

The Architectural Association School of Planning in London made an experiment some time ago consisting of superimposing the boundaries of different purpose areas in England. There were sporting areas, ecclesiastical parishes, telephone and postal districts, in short as many administrative and geographic areas as could be found. The result showed a remarkable degree of conformity although only a few boundaries coincided. Natural regions can be discovered by such analysis.

In this country our effectively planned regions are mostly geoeconomic areas. Such are the river valleys having power and timber resources. The system of dams and the control of the water on the St. Maurice river and its tributaries is a good example. Similarly industrial or mining areas along transport routes or fertile agricultural planes form natural regions that are easily recognized as the Eastern Townships, the Laurentians, the Rouyn, and Gaspé. So far their problems have not necessitated any strict regional planning beyond the ordinary highway system or the telephone and electric utilities.

In Britain and the United States regional planning now means comprehensive physical planning to achieve social and economic well being throughout a related area. It is established upon a real necessity. The Tennessee Valley Plan is an example. The act establishing the planning authority stated that it was to achieve the proper use, conservation and development of the natural resources of the Tennessee River drainage basin and of such adjoining territory as may be related to or materially effected by the development consequent to the act and to provide for the general welfare of the citizens of the areas. The plan followed years of tragic losses due to floods. Within four years after the establishment of the authority it was stated that the facilities of the controlled river were being used to release the energies of the people. The pioneer of a century and a half ago could get his living from the new land with axe, rifle, and plough. The pioneer of the present day has available a heretofore underdeveloped resource — potential of running water — with which to secure in modern terms the equivalent of what his ancestor found ready-to-hand. He must tame water so that it will not wash away his land or inundate his home. He must have it available when it is needed to carry his goods. He must take power from it to turn his machines and to light his home. He can not achieve these things by individual effort, but he can achieve them through his governmental agencies, National, State, and local, in voluntary cooperation with his neighbours. The Tennessee Valley scheme is a regional plan. The Planning Authority has funds and power to act. The nature and extent of the problems demanded it. It is comprehensive in dealing with all phases of life in the Valley.

The Regional Plan of New York and its environs prepared under the sponsorship of the Russell Sage Foundation is an example of another type. This is an advisory plan without legislative authority. Its organisation is interesting. About twenty years ago a group of business and civic men formed the idea of a development plan for the New York area, about 500 square miles. They obtained the support of the Russell Sage Foundation which spent one and a quarter million dollars on the original survey and proposals. In 1931 the New York Regional Plan Association Incorporated was formed to carry on the plans. This organization is privately financed. It receives about a third of its income from business and industry, a third from the Russell Sage Foundation, and a third from individual memberships. It has a board of directors who are appointed annually from the three states, New York, New Jersey and Connecticut. There is a staff of about fifteen, eight technical

workers and the remainder clerical. Unlike the TVA, the Regional Plan Association has no official power, only the power of an idea. But in approximately one-third of the time originally allowed to carry out the plan, 50% has already been completed. The Plan Association provides a general objective of public thinking and approval. For instance, when it comes to developing a system of parkways the public is ready for it.

There are thus two types of Regional Planning Authorities, one for action and one for advice. Circumstances determine which is the most effective. The important point is that the plan should be comprehensive and based upon a full knowledge of the social, economic, and physical conditions prevailing. In either the incorporation of a private planning association like the New York body or a government authority like T.V.A., the precise aims and functions of the enterprise have to be set down. Assuming a region has been defined and a planning board has been set up, the next step is the survey.

For a survey a technical staff is required either employed directly by the board or provided in the staff of a planning consultant retained by the board. However the survey must be competently conducted. The importance of having all the available data properly recorded cannot be overestimated. It is said that the solution of the planning problem is in the answer to the questions: What have we got? What do we want? How can we get it? The survey should outline the existing economic, social and physical conditions and trends. A good bit of the survey consists of consulting maps and published statistics. Surveys differ according to the availability of the material and the nature of the problems involved. It is usually a surprise to discover the amount of material that can be obtained from census records and departmental maps. In England the task of the planner is simplified by the amazingly complete ordnance surveys and Stationary office publications on such matters as population and occupation, housing, agricultural and industrial conditions, highways and utilities. In Canada this information may not be so easily found but it can be combed out of the records. There is some effort at the present time in one of the Federal Government departments interested in planning to make and publish a model planning survey showing the sources and the manner of obtaining information available to municipalities or others preparing a plan.

The planning surveyor can also consult the engineering departments of the local authorities which will normally have a map showing streets, sewers, and transportation lines which can be used as a base map. Utility companies or the local highway department may have similarly useful maps. School boards can sometimes provide spot maps of the distribution of school pupils. Police departments have data on traffic volume and the records of vehicular accidents over a period of years and recently local civil defense committees have put together information that can be useful to a planning commission. Complete

aerial surveys of areas formerly uncharted may be available after the war, and the new science of surveying public opinion is another possible source of useful information.

The make up of the planning board is important in the survey of social and economic trends. Local men are obviously sensitive to local conditions. They are as important as the technicians and in the end the local men on the board are essential in obtaining popular approval of the plan and the necessary support for its operation.

The next stage is the analysis of the data collected and the diagnosis of the major problems. This leads to the preparation of the master plan. The master plan is not a hard and fast scheme as the blueprint of a house under construction, but a broad and considered program for future development. It deals with economic and social matters as well as physical things. It is in its scope that the modern concept of regional planning differs from the older, specialized planning such as conserving wild life or timber or building a transport system. Master plans in the United States and England have included land utilization, communication systems, public services and administration.

A land utilization scheme has to do with the physical pattern. Its object is to obtain a land use that will provide a pleasant and efficient environment for social and economic activities. The instrument for achieving the land use program is the zoning map and ordinance. This stipulates in what particulars land is available for agriculture, mining, forestry, recreation, building development, and it provides a method of control for the common good. It can be a protection against soil erosion or wasteful exploitation of resources or stupidity in land subdivision. It can also be used to reserve land for the public due to scenic or historic interest.

Communication systems can be organized by the planning authority. Streets, highways, railroads, bus routes are factors of the greatest importance in the social and economic development of a region. They demand regional consideration for efficiency. Modern automobile traffic crowding along old roads or through villages has often produced serious social disruption. The old routes become inefficient for their original purposes as well as for their new uses. The modern highway in America and in Europe is separate from the old road. It carries traffic swiftly and easily through the countryside around populous areas. The new highway does not plough through villages or along existing roads causing the destruction of avenues of trees and the removal of buildings at great cost whenever it requires widening.

In the United States and in England the idea of the limited access highway is being accepted. It seems to be the right form of highway for automobiles moving rapidly from centre to centre, and it allows the old road to continue efficiently its neighbourhood function. The limited access highway is the result of a regional consideration of the highway problem by an authority that has a grasp of all the problems in a region and the power to obtain the best solution in the public interest.

Public services are also important factors in regional planning. Water supply and drainage problems have regional significance. Educational and recreational facilities are others. The proper development and control of public services requires a regional authority with power to plan comprehensively their integration with the program for land use and circulation.

A regional plan would not be complete if it did not include a specific method to be followed in carrying out the planning proposals. This is usually accompanied by an estimate of the cost of the major works and proposals regarding the annual charges. In most cases the plan is prepared and administered by a board. In the United States the planning boards are partly citizen and partly official. In England the plans are usually administered by the committees of elected members of councils and their permanent staffs. The planning authority requires a staff for routine work and facilities for regular meetings to consider detail problems in connection with the application of the plan. The plan is not a fixed pattern to which everyone must conform. It is rather a guide. It should be a flexible and dynamic policy admitting the changes and variations that may be considered necessary from time to time. Its ultimate success will depend upon the awareness and the imaginative capacity of the planning authority.

In Quebec a corporation may obtain the power to plan from the provincial legislature. St. Foye obtained the right to plan in March 1943, "in the interest of the ratepayers and of proper administration as well as by reason of its rapid expansion it has need to adopt a zoning and building by-law for the purposes forthwith regulating such expansion in the interests of safety, hygiene, economy and aesthetics, thus avoiding the confusion and the ruinous expropriations which would be the result of unregulated expansion".

Here in Quebec there is also some suggestion that the idea of regional planning may be adopted. People are aware of the cumbersome way our socio-economic regions are divided for administrative purposes into long narrow land strips. This pattern at one time had some sense but it is now obsolete. New administrative regions need to be formed.

There are others who are aware of the need to combine some form of part time employment with agriculture where soil and climatic conditions limit the income that can be expected from a farm to a discouraging degree. The proposal is to combine small holdings with forestry or with mining or fishing, so as to secure constant employment, higher income, social stability and an extension of the permanent settlements of the province. This is the sort of proposal that may develop into regional planning because in order to be effective all of the factors will need to be understood and some will need to be controlled. For example the Canadian method of cropping forests where the woodsmen move on and return only when the forests have grown again, might be replaced by the European method of established forest communities.

The general dissatisfaction with building development along new highways is another instance of the growing awareness of the need

for some form of control. New highways tend to upset the physical pattern of the land and the development that follows is frequently as aesthetically unhappy as it is socially. In England this is called ribbon development and the general objection to it has done more than anything else to obtain popular approval for planning schemes that promise to prevent further extension of unsightly ribbon development.

The new highway often cuts up farms, leaving parts which are unsuitable for cultivation. Sometimes the owners sell these little pieces for shack development. The highway in front of the shacks provides a direct route with towns and employment in either direction. If it is a busy highway it will have the advantage of providing continuous free transport for the hitch hiker. If there are any taxes on the land at all they will be low because there will almost certainly be no services. There is also the seeming advantage of freedom from any restrictions affecting building construction, health and sanitation, or even social life. This type of land is seized by certain people who for economic or other reasons avoid town life, but who would undoubtedly be better off in a more organized community.

The prevention of ribbon development necessitates the provision in villages and towns of decent housing for people with the minimum to pay. It requires also the careful exchange of small parcels of land so that all the land after the highway is cut through is available again for agriculture. A further precaution is the prohibiting of the erection of any building within five hundred feet of the centre of the highway. By such a control efficient roads can be acquired with spectacular scenic qualities and without social blight. This might be a strong argument in favour of regional planning in a province that derives much income from tourists.

The rapid expansion of some of our country towns and villages as a result of war activities has provided another example of the need for controlling development. The goose village and the shanty town in the no man's land outside municipal limits may provide cheap accomodation for their present occupants, but where this has happened before the whole community pays heavily in terms of health and delinquency. A regional planning board could prevent such anti-social developments, prevent the waste that is continually attached to bad building and secure decent extensions of existing towns.

Community Street Systems



By R. DE L. FRENCH,

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An important factor in the success or failure of any town plan is the skill with which its street system is designed. A successful community street layout must meet efficiently a number of conditions. A completely satisfactory one should

- (a) Have ample capacity to handle safely maximum traffic, both wheeled and pedestrian;
- (b) Provide the shortest practical route from point to point;
- (c) Leave blocks of suitable size and shape to be attractive to builders;
- (d) Provide access to these blocks;
- (e) Be economical, i.e., not cost too much in the first place, be capable of expansion at reasonable cost as traffic demands, and have low maintenance charges, including cleaning and snow removal, the latter a very important factor in our Canadian climate.

It may be worth while to comment briefly on each of the above sub-divisions of the problem. It goes almost without saying that the street system which successfully meets one of the above conditions will frequently be unsatisfactory under one or more of the others. It therefore follows that the final design is arrived at by a process of compromise which results in that one which is most generally satisfactory over all, although quite possibly it is susceptible of improvement if one only of the governing factors noted be taken into account.

The provision of ample capacity means not only provision for today's traffic, but also for that of years to come. This involves the prediction of the future load on the system, a point to which I shall return hereafter. It should be emphasized that "traffic" includes pedestrians. Too often, it seems to me, the pedestrian has been overlooked, to some extent perhaps because motorists are well-organized and vociferous, a pressure group which seems to present its demands with a great deal of force.

The truism that a straight line is the shortest distance between two points applies just as truly in street planning as it does elsewhere. The straight street is the ideal street, from this point of view, but presupposes that its ends are fixed, which is not the case. The thousands of people who use our street systems start their journeys at many points

and terminate them over a wide area. Obviously, we cannot supply each of these travellers with the most direct route from his location to his destination. The best we can do is to establish certain focal points within our city area and connect these as directly as possible.

Builders in general dislike lots of odd shapes, for example, those whose angles are acute or very obtuse, or which have curved boundaries. While a good street system cannot avoid some lots of odd shapes, it is desirable, I think, to try to reduce their number to a minimum.

Economy in fixed cost and in annual charges is much more largely influenced by careful planning than many seem to think. Too much thought can hardly be devoted to this phase of the problem.

The general procedure of planning may be conveniently treated under two headings: first, the general plan, and second, the details. Under the first heading, we should consider such matters as the general location of our streets, proper widths for rights of way, limits of curvature and grade, and the ratio of street area to area served.

Perhaps the proper place to begin is with the item last noted above—the street area. The few studies which have been made seem to show that there is for any particular community an optimum area of street surface per acre or per square mile of occupied territory. It is obvious, I think, that this area will vary with the character of the community served and with the density of motor traffic, which is conveniently measured by the motor car-population ratio. So far as I am aware, the few figures available do not apply to Canadian conditions: the most widely known are based on studies in California.

A visit to any of our older cities will convince even the non-engineer that street widths are generally inadequate and yet the distance from curb to curb is frequently as great as the width of the right of way permits. This means that one should be generous in establishing rights of way. Because one has set aside a strip 150 feet wide for a street does not, of course, mean that that whole width must be developed at once. Only a part of it, say perhaps 50 feet, may be paved and provided with sidewalks in the beginning, but the right of way is available and future widening will not involve damage to private property.

There is not much to be said respecting curvature. We shall always have sharp turns at intersecting streets. The best that can be done is to arrange matters by control of building lines, of tree planting and the like, so that the hazard of collisions at such points is reduced to a minimum. Of course, long sweeping curves add both to the amenity of the street system as well as to its safety, but in city systems such curves are not often practicable.

The modern motor car is a good hill-climber, so there seems to be no particular reason why standards of maximum grades set up in the days of horse-drawn traffic need still be adhered to. Probably in setting maximum grades for a particular community one should be influenced as much by the safety factor as by the possibility of their interfering seriously with the handling of traffic. Obviously, grades which would be permissible on secondary or access streets would be considered far too steep for those carrying heavy traffic.

There is and probably will continue to be much discussion concerning the relative location of pavement and sidewalks, the most suitable type of paving material and the proper location of public utilities in the streets, to mention only three of the multitudinous details concerning which the designer must decide.

In our climate, the tendency seems to be to place the sidewalks adjacent to the curbs and to do any tree-planting along the inner edges of the walks. This leaves the whole street area, sidewalks and pavement which must be cleared of snow, unobstructed.

The choice of paving material is largely a matter of economy and expediency. No ironclad rules for a choice can be given, save that in general the higher the original cost of the pavement, the longer its life and the less the annual charges for maintenance and depreciation. Such matters as quietness and non-slippery qualities need consideration, in our climate particularly the latter.

The location of public utilities is a matter in which the road engineer should have some say. Under our streets there is a maze of services of one kind and another—water mains, sewers, gas pipes, power and telephone conduits, to mention only a few. On the surface the major public utility is, of course, the tramway line. I am not one of those who look for the early abolition of all tramway systems. There is no doubt that many lines will be replaced by busses, but it is also true that the capacity of bus lines is lower than that of the street railway, and that their cost of operation is relatively higher, provided there is a sufficient density of traffic to warrant tramway construction in the first place.

We may divide the street system into thoroughfares and access streets. Thoroughfares are designed to furnish direct connection between the various parts of the same city and to receive incoming traffic and distribute it to its destination. Also, of course, they serve as access streets for the abutting properties. The earliest and still most generally used system of thoroughfares is the rectangular grid, probably originating in the layout of the Roman camp. The grid system involves traveling around two sides of a triangle in the case of the majority of people who use it. Something less rigid than this system is needed for thoroughfares.

Access streets are laid out on the assumption that they will carry only local traffic and not much of that, hence there is here less objection to the rectangular grid. It is probable that something approximating a grid will continue to be used.

There are those who believe that lanes or alleys are a valuable addition to the local street system and there are those who are equally sure that they are not. A strong plank in the anti-alley platform is that these alleys often become receptacles for rubbish and breeding places for nuisance and disease. Such conditions are unnecessary; many of our cities find their alleys a great convenience. They permit the delivery of heavy goods, such as coal, to householders without blocking the streets or creating a nuisance in them, and provide a right of way for certain public services, noticeably telephone pole lines, which are

certainly no addition to the beauty of residential streets. They have other advantages, although as commonly maintained there is some strength to the objections frequently urged against them.

It may be interesting to compare the actual layouts of four of the largest cities on this continent: Philadelphia, Detroit, Washington, and Montreal. Philadelphia was laid out by William Penn in 1683. His original plan was a gridiron of mathematical exactness, which even the Philadelphian would admit has been a handicap to the city's development. Within recent years the city has begun a programme of thoroughfare construction, which departs radically from the original plan. It is probable that much more modification of this kind is desirable before Philadelphia can feel that it has a reasonably efficient street system.

Detroit was laid out in 1805 by William Hull, Governor of the Michigan Territory. Its plan goes to the other extreme. The original map of Detroit shows hardly a rectangular block, the arrangement being generally triangular with large squares at the intersections of those streets which were planned to be the principal ones. Actually, the plan was not followed in its entirety, although traces of it are still noticeable in the Detroit street system. It has been largely hidden by the conventional rectangular grid plan superimposed upon it in recent years.

Washington is one of the first cities in the world which was planned from the beginning, and in which the original plan has been very closely adhered to. Here we have an example of a rectangular grid upon which diagonal streets between important centres have been superimposed. The result, as anyone who knows Washington will agree, is most satisfactory.

Montreal, the oldest of the four cities mentioned, "just grewed". It is impossible to say what principles, if any, were followed in laying out the oldest part of the city. The newer portion is made up of successive real estate subdivisions in which the subdivisor was allowed almost complete freedom as to street layout. It is amazing that there are so few dead ends and offsets in our system, when one considers the way it has developed. Of course, the fact that Mount Royal Park blocks many streets in all directions must not be forgotten. Even with this handicap, a much more efficient street plan could have been developed here had some thought been given to it. It is probable that ultimately we shall have to revise our system materially.

At the beginning of this paper I mentioned the necessity for some idea as to future traffic conditions as a basis for design. Information on this point can best be obtained by making the necessary traffic censuses from time to time, observing trends, and endeavouring to project these trends into the future. Oftentimes a simple counting of vehicles is all that is necessary. This can be done manually, of course, but there are mechanical counters of which increasing use is being made. A growing city should have traffic censuses in progress practically all the time.

One of the most pressing problems before us is to increase the capacity of our thoroughfares. Two or three possibilities will come to mind at once. Permitting high speeds, widening streets and reducing delay are three.

The only practicable means of speeding up traffic materially without increasing traffic accidents is by providing "freeways" or "limited highways" for through traffic and prohibiting the use of such thoroughfares by local traffic. Such limited highways are expensive. If they are to be thoroughly efficient there must be no intersections at grade, i.e., cross streets must be carried over or under them. Nevertheless, some of our cities have found the large sums required for the construction of limited highways a paying investment. It is probable that we shall see a much greater use of this type of traffic artery.

Street widening is generally an expensive process. Streets which need widening badly are usually bordered by property of high value. In any event, the mere widening of the street does not eliminate the delays to traffic at intersections and elsewhere.

The elimination of delays to traffic is frequently the first step toward increasing traffic capacity. Incidentally, it also tends to reduce traffic accidents. The simplest kind of traffic control is the introduction of "boulevard stops", i.e., requiring traffic about to enter a thoroughfare to come to a stop before doing so. The control of traffic at intersections by traffic lights or by utilizing the services of a traffic officer are also expedients familiar to all.

Occasionally, it is possible to open parallel and alternate routes which relieve congestion. This is an expedient which is perhaps not always given the study it deserves.

Since much, if not most, traffic delay occurs at intersections, the removal of this delay acts to speed up traffic in general. Various schemes have been proposed and used for unscrambling the traffic tangle which often occurs where there is no regulation and where intersecting or opposing streams meet. Among them may be noted the painting of guide stripes on the pavement, and the provision of islands with appropriate signs designed to separate traffic streams. A particular case of the traffic island is the traffic circle around which all traffic rotates in the same direction. The use of "clover leaves" and their variations is seldom practicable in the city. These devices, probably the most perfect arrangements for avoiding traffic intersections, occupy far too much space for city use. Occasionally, viaducts have been built to remove through traffic from the street surface. Two cases in point are the West Side Improvement in New York and the viaduct from the end of the Point Street Bridge in Providence.

The safety factor must not be overlooked. It is encouraging to note that the great majority of traffic accidents are caused, not by defects in the streets or in the motor vehicle, but by the lack of care or by the stupidity of the driver himself. I cannot suggest any cure for stupidity or carelessness, save that penalties for infractions of the rules of good driving should be made more severe and enforced, and that some attempt should be made to teach drivers how to drive. In some cities driving classes have been set up in the high schools. It would seem reasonable that a boy or girl who has received some instruction in the art of proper driving, should eventually turn out to be a better-than-average driver. I think more can be done along this line.

Traffic control certainly serves to reduce accidents, but it must be proper control and introduced only after a study of the particular case in point. Among minor aids to safety are clear and adequate signs and guide lines on the pavement surface, the provision of loading islands for busses and tramways, and the control of parking on the public streets.

Parking is a controversial matter. There are those who feel that it is a municipal duty to provide them with a place to store their cars for 24 hours of each day. Fortunately, they are in the minority. I know of no court which has upheld any such claim. On the other hand, there is a school of thought which would prohibit all parking, holding that the streets are for the purpose of handling traffic only. What the final solution will be is not now apparent, but the trend is certainly toward parking, even for short periods, off the streets. It is not beyond imagination that the time will come when the driver of a passenger motor vehicle will be permitted to stop at the curb only long enough to take on or to discharge passengers and when the blocking of traffic by commercial vehicles engaged in loading or unloading will be forbidden. This means, of course, that any real parking will have to take place outside the street limits.

One might cover much more paper than is required to accommodate this résumé and still leave much unsaid concerning street system design problems. However, perhaps what has been written here may serve to emphasize the fact that street design is a real problem, one which requires much skill and good judgment for its proper solution, and one the correct answer to which will pay dividends in the future.

Traffic, Transportation and Terminal Facilities



By D. E. BLAIR,

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This subject is so broad that I feel we should direct our discussion toward a better understanding of the basic factors that control transportation facilities in any growing community and especially in our larger centres of population in which the free movement of traffic is essential to future development. It is not my intention to use a mass of statistics and astronomical figures that mean little, except to an expert, but rather to provide some food for thought by calling attention to some of the problems with which we are faced in providing means for adequate transportation to meet the future needs of our own particular community in which climatic conditions have a very important bearing on the mobility of traffic.

We are proud of the relatively hoary age of our city but a part of our heritage is that we are badly handicapped by narrow thoroughfares. These were planned by past generations to accommodate the limited passenger and freight traffic that had to be moved by slow, although relatively efficient, horse-drawn vehicles.

The advent of the automobile and the enormous increase in the movement of goods and people during the last twenty-five years has made us realize the utter inadequacy of our roadways, especially in the central districts. In cities of moderate size, with traffic in proportion, there are certain advantages to be enjoyed as a result of the concentration of business and industrial premises within a central area but, in any growing city, a point is, sooner or later, reached when access to and passage through such an area becomes difficult and wasteful of time and money. The natural result of this condition is already in evidence, in Montreal. We find that in different outlying areas of the city, more or less self-contained communities have come into existence. These, however, have not been planned or designed as part of a coordinated group of independent units but have come into being and developed without pattern or premeditation as to their ultimate economic structure. The commercial development of St. Hubert Street, north of Bellechasse, Mount Royal, east of St. Hubert Street, Snowdon Junction and the City of Verdun, are examples.

Access to and passage through most of these areas is already badly congested because the streets leading to the commercial centres of these

communities are too narrow for the purposes that they serve, even now, to say nothing of the future. All these new communities were built up around transport facilities that seemed to be adequate but are such that they will not encourage future development.

Good town planning, with due regard to transport requirements toward and beyond, as well as within these communities, would have resulted in a much more healthy growth and would also have guaranteed their permanency as self-contained units in the composite whole that will be Montreal.

The plans being made for the rebuilding of London, England, show that those responsible are fully converted to the idea of a well ordered grouping of more or less independent community centres, rather than to an endeavour to maintain the original pattern of that metropolis.

As our city grows, we recognize a similarity with conditions in older cities elsewhere. Our central district is congested and crowded. Real property values have in general declined substantially from former standards, although assessment values have not declined in proportion. Surrounding this district is a ring of rundown buildings that were once desirable, in favored surroundings, but which might now be classified as a slum area where rental values have deteriorated to a very unsatisfactory level. Beyond this ring is what may be called a blighted area where fine residences are being converted to small tenements, boarding houses and small business premises that seem, to the passer-by, to exist without visible support. Outside this area we find the newer residences to which people have migrated in order to enjoy more room, more light and more pleasant surroundings.

Science and invention have given us the advantages of the private automobile to reach the more desirable areas but the general use of these vehicles has created new problems in our community. The most important is perhaps the result of the natural desire of the emigrants from the centre of the city to travel to and from their places of business into and through the central district by the most pleasant means at their disposal. This desire results in the choking of our limited street space with a multitude of private conveyances, each of which carries, on an average, only 1.6 passengers and occupies from 500 to 700 square feet of street surface, depending on the speed of travel.

When making comparisons of the relative efficiency of different forms of transportation, we must be guided by the number of people that can be accommodated and not by the number of vehicles.

Average figures derived by experts who have made traffic studies in many American cities show that:

	<i>per hr.</i>
1 lane of autos on surface streets can move.....	1,575
1 lane of autos on elevated highway can move.....	2,625
1 lane of buses on surface streets can move.....	9,000
1 lane of streetcars on surface streets can move.....	13,500
1 lane of streetcars on elevated or underground can move...	20,000
1 lane of rapid-transit trains, elevated or subway, local service	40,000
1 lane of rapid-transit trains, elevated or subway, express...	60,000

Note.—As a matter of fact, during the evening rush hour, before the Aylmer loop was built, the northbound cars on Bleury Street, in Montreal, were carrying more than 14,000 people per hour.

You will note from these comparisons that the capacity of a lane of buses on a surface street is nearly six times greater than a lane of automobiles and that a lane of streetcars on surface streets can move $8\frac{1}{2}$ times as many people. If these cars could be operated overhead or underground, they would carry nearly 13 times as many.

The improvement of our internal circulatory system to give easy and rapid means of transport, between the centres of our social and commercial activities, must be considered as being of greater importance than the providing of enormously expensive outlets for the favoured minority who can afford to enjoy the advantages of living outside of the city.

Sir Raymond Unwin sizes up the matter very well when he says that "The people have been going out from the city to live to such an extent that they now can hardly get into the city to work".

We all know that the population of our city has grown faster than the capacity of our streets to handle the increased traffic. The automobile has greatly stimulated the travel habits of our people because of the relative ease, speed and comfort made possible by its use regardless of the relatively excessive cost of travel. Owners of centrally located properties are very uneasy about the future of their investments because the difficulties of access are creating a necessity for decentralization and the development of smaller and more accessible business centres all over town.

One of the main reasons for our present difficulty is that there is insufficient room on our few main thoroughfares for the free movement of our stop-and-go trams, carrying the large bulk of people, and the fast growing horde of automobiles on their non-stop journeys. I would here remind you that all the streets in this city that are suitable for the installation of tram lines were occupied before the end of the last century and that Sherbrooke Street, as far east as University, is the only street, south of the mountain, that has any of the characteristics of a modern boulevard for vehicular traffic. It is unfortunate that the topography of the city, the lack of suitable parallel highways and the condition of our side streets in Winter all contribute to the natural gravitation of a large proportion of the automobiles, at some stage of their travel, to the streets upon which the trams operate.

It must be obvious to everyone that since there are no more surface streets available for public transportation, some major changes must be made before we can improve the fluidity, the speed, the convenience, the comfort and cost of travel and transport within the city limits. The most effective improvements are probably the following:

1. The providing of facilities for part of the traffic to be diverted to overhead structures or to go underground.
2. The widening of existing thoroughfares so as to accommodate a larger volume of traffic.

3. The demolition of miles of buildings to provide new arterial highways that will drain the fast through traffic from the most congested streets.

All of these improvements would entail a very high cost, but it is probable that the first would afford the greatest relief at the least cost, and should be given special attention because it will have to be done sooner or later, no matter what other measures are taken. The damaging effect upon the values of bordering properties will perhaps outlaw the elevated-structure idea. Our first approach to this matter should perhaps be to consider the probable trend of transportation after the war. It may be assumed that the luxury of travel in private automobiles will again be uppermost in the minds of our people. It is freely predicted that cheap and economical automobiles will be available in unheard of quantities as soon as our car manufacturers can turn from the making of swords into the making of flivvers.

If a satisfactory peace-time economy can be developed, wages may be somewhat higher than before the war and there may be more time for leisure and the enjoyment of life. The tendency will probably be toward an enormous increase in the most attractive but woefully inefficient method of transportation, the private automobile. We will then be faced with the problem of finding sufficient street space in our central and commercial areas for accommodation, not only for the movement of a larger number of these vehicles, but to provide storage for them after they have performed their useful purpose.

It will be said that we have not reached a critical stage because our automobile registrations, so far, have been substantially lower than in other cities of our size on this continent, but in 1939, our narrow streets, and the limited number of through streets having suitable characteristics for automobile traffic, were responsible for a degree of congestion quite comparable to the saturation observed in other cities.

Responsible interests are aware of the necessity for doing something about the congestion of traffic, but there will always be selfish pressure groups who expect to benefit at the public expense and who are able to exert political influence in favour of some project which may not be in the interests of the community at large. We will never have effective improvements until the community can be made to recognize sound policies and plans for the future.

Some architects and artists are prone to excite our imagination with promises of widened thoroughfares, super highways of two or three decks, a multitude of grade separations and the like, always with the idea that everyone travels in automobiles. Well, this is not the case, and the fallacy is exaggerated in proportion to the size of the city.

In all the larger cities on this continent, anywhere from 75 to 85% of the travel into and out of the central business and industrial area is by means of public transportation and this must be, because in no other practical way is it possible to provide the facilities for the movement of the masses.

Our first and dominant idea should be to bring about the greatest good to the greatest number, within reasonable limits of expenditure and the least disorganization of our present economic development. In other words, efficiency must guide our actions and it seems to me that our studies should be centered upon projects that are practical and economical as well as far-reaching in their effects. Any observant person must have noticed how cities grow around transit lines. Accessibility is the obvious reason. Let us consider the development of the largest city on this continent—New York.

The business area was once confined to the lower tip of the Island. This district became the terminus of all elevated lines, subways and connections with Brooklyn and the western mainland. Surface traffic became so congested that the automobile soon deteriorated to a negligible factor in obtaining access to the district. The advantage of greater accessibility brought about the rapid development of the area around 14th Street which had all the advantages of the north-south transit lines and was still available to the user of surface facilities.

Construction of the Pennsylvania Terminal, giving easy access to communities from Jersey and Long Island, caused rapid development of the 34th Street area.

The Grand Central Station provides a desirable means of approach for commuters from the north and north-east, with the result that a new city of skyscrapers quickly developed around 42nd Street and now rivals the original downtown business area which, however, because of its excellent transit facilities, still holds its own.

The building of the Independent Subway, connecting 53rd Street with Long Island, resulted in the remarkable development of Radio City and its surroundings. In the meantime, limited improvements for automobile traffic have been provided by a super highway on both the east and west side of the Island, but the transit lines still carry about 85% of all people entering and leaving the enlarged central area throughout the whole day and a still larger proportion during peak hours, morning and evening, when traffic congestion is at its worst. The same phenomena can be seen in any of our larger cities.

The basic purpose of the present series of discussions is to develop a general interest in the solution of our problems relating to the betterment of the conditions under which we and our succeeding generations are going to live. I have no comprehensive and detailed plan to offer but if we are to have a sound and stable community growth at a reasonable cost, the various parts of a comprehensive plan must be closely coordinated and projects that result in the greatest benefit to the community as a whole must take precedence. Of first importance in such a program is a modern and well-designed transit system in which all forms of transportation are given due consideration.

We must remember that so long as the central areas of the city are poor places to live in, people will try to get away from them no matter what kind of transportation is available.

Better transportation alone will not put an end to this tendency. Our Housing and Planning experts will have to find ways and means of reducing the highly assessed land values in the blighted central areas so that builders will find it possible to obtain a reasonable return on their investment by the construction of houses of moderate height, having sufficient spaces between structures so as to make these areas more desirable residential centres.

It is now obvious that the town pattern in the past has been more accidental than premeditated. Zoning ordinances in large cities have allotted too much area for industry and commerce and for multiple dwelling use with too little provision for two-family and single-family dwellings. Our newly developed communities have erred in the other direction.

We now have an opportunity to rebuild our slums and blighted areas so as to provide residential areas in closer proximity to the various industrial centres.

Cost of travel is in direct proportion to distance travelled. Long hauls make for higher costs per passenger. Public transit agencies must maintain a favourable balance between revenue and cost or else the quality of service rendered must deteriorate. It is therefore possible to give a better quality of service for a given fare if the area served is kept within reasonable limits. For that reason it is desirable, for the great majority, that unprofitable operations to thinly populated outside areas be cut to a minimum in order that better service can be offered to the more thickly populated centres.

The following practical suggestions are offered as being of general interest to all who must avail themselves of public or private transportation:

1. There should be separate arteries for the free flow of through traffic of private automobiles and possibly buses.
2. We must have coordination of public service routes in order to encourage the most desirable distribution of urban population.
3. There should be separate direct routes from the central business district to each of the important residential areas.
4. Zoning plans should be influenced by the desirability of separating the movement of commercial vehicles from those carrying passengers.
5. Surface transit lines should be given first consideration when planning grade separations and such arteries should be protected by sensible traffic control that would minimize the obstruction to moving vehicles by parked cars.
6. Let us insist upon making the streets serve the purpose for which they were intended, viz., to accommodate *moving* traffic. This means strict regulation of parking and even of stopping privileges in certain sections of the city.
7. Prohibit the loading and unloading of freight on congested streets at least during peak hours of traffic. Off street loading should be made compulsory after a time.

8. Prohibit angle parking of trucks while loading or unloading merchandise.
9. Provide competent engineering supervision over the traffic signal system so that the signals may serve their real purpose, viz., to move traffic rather than to stop it.
10. Eliminate more bottlenecks at important intersections by cutting back the sidewalks to give more room for vehicular traffic. Progress has been made at various points of which I may mention Dorchester Street at the Ford Hotel, corner of Inspector and Notre-Dame and Craig Street at Bleury. A very bad case is the north-west corner of Dorchester and Peel.
11. Provide easements at staggered intersections such as the north-west corner of Sherbrooke and St. Urbain Streets.
12. Control the cruising of taxis.
13. Control the weaving in and out of normal traffic lanes by the painting of white lines on street surfaces. Driving habits developed during the open season would improve conditions in Winter when many of these lines would be obliterated.
14. Allow parking on only one side of one-way streets.
15. Eliminate all parking on the inbound traffic lanes of main thoroughfares from 7:00 to 10:00 a.m. and on the outbound lanes from 4:00 to 7:00 p.m. As for mass transportation, I may advise that careful traffic surveys and engineering studies have been in progress for some time with a view to the dipping underground of some of the more congested tram lines and that all plans of this kind are tied in with the ultimate construction of Rapid Transit Subways.

Your first thought will be, "why not build the Rapid Transit Subways now?"

Well, these are highly desirable in large centres of population but the real question is "How can we finance the building of a system of subways that will solve the greatest of our traffic problems?" I think that I can safely say that, for a given measure of relief, the capital investment involved would be much less than that which must be expended to provide equal benefits by the widening of old streets and opening up of new boulevards to make room for the free movement of private automobiles and buses.

Who will supply this capital? Past experience in the very few large cities that can boast of subways has been such that it is extremely improbable that private capital will be invested in any future subway project.

The building of subways in the future must be financed as a public undertaking, in the same way as we provide for the construction of sewers, water mains and roadways, as essential public services.

The cost of building subways varies widely in "cost per mile". It is by no means confined to the cost of boring a tunnel or the building of high level tubes by the cut and cover method. Much depends upon the interferences encountered with existing underground structures. Water and gas pipes and sewers were located without regard to the future possibilities of subway construction.

All such structures must be removed and replaced without disrupting the essential purposes that they were designed to serve. Furthermore, owing to the liberal curvature essential to high-speed transportation, the tubes must often encroach upon the property rights of surface structures.

Foundations of existing structures must not be disturbed or endangered and in large areas of our city, the soil conditions are such that the drainage resulting from the disturbance of the soil will cause settlements for some distance away from the actual location of the tube.

Stations with wide platforms, probably 500 feet in length, must be provided every quarter mile or so. Stairways and escalators to the outlets must be provided as well as rails, electric power distribution and elaborate signal systems.

Keeping in mind the magnitude of the expenditure involved and the fact that public funds are to be used, the following questions are pertinent to the matter.

1. How many people and what particular groups will benefit directly by the completion of the project?
2. Will the time saved by passengers justify the cost which must be borne by the citizens themselves? The time saved will depend upon the distance travelled in the subway and the relative increase of speed over an unobstructed right-of-way without level crossings.
3. In what order shall the various interested areas be served by the construction and how soon will be a decision be reached? Subways are not built in a day and any comprehensive system will take years to complete. A beginning must be made somewhere and each additional mile must be developed as part of a master plan which should anticipate the growth of the city for at least 25 years. I shall not hazard a guess or a suggestion on this point as there will be too many conflicting interests, political and other who will have widely divergent views.
4. To what extent will property values and business advantages be enhanced in the city as a whole as well as in the immediate vicinity of the subway? Much of the turmoil that will precede actual construction will be centered around this aspect of the development.

When these measures have been taken, the next step is to widen narrow sections of streets in the central area such as those on St. Catherine Street between Guy and Peel Streets, on Sherbrooke Street between University and St. Denis and Dorchester between Beaver Hall and St. Lawrence.

We should then consider the widening of narrow streets that run parallel to overloaded main thoroughfares, such as Vitre Street from Beaver Hall to St. Denis; also Ontario and Burnside, through Guy to Atwater Avenue.

In conclusion, if we are to have a balanced and well-ordered community, we must make due allowance for three fundamental movements:

1. Public passenger transportation.
2. Private passenger transportation.
3. Commercial transfer and delivery of materials and merchandise.

In providing adequate facilities, we must keep in mind that time saving and safety are the primary requisites.

Experience has shown that routine urban travel becomes irksome when the time occupied in making the trip is of more than about 30 minutes' duration and the average citizen is inclined to measure distance in minutes rather than in miles. Increased speed of travel therefore enlarges the area within which the most desirable residential districts can be established.

The average speed of movement is seriously affected by the mixture of the three types of traffic on the same street and every effort should be made to segregate them as much as possible.

The fundamental purpose of passenger transport is to move people and not vehicles and for this reason, transportation facilities in densely populated areas should be so designed that the most efficient means of transport shall receive primary consideration.

When planning new housing and community developments, street patterns need not be of the severe rectangular type but should not be so complex or irregular that public transport cannot adequately serve the district.

In designing street accommodation, every care should be taken to minimize the conflict between streams of traffic crossing at right angles. There should be a minimum of marginal friction or interference along the outer edge of the moving stream and sound traffic control is necessary to discourage drivers who insist upon moving at a snail's pace on highways upon which the characteristics of the greyhound are desirable and practicable.

I would again suggest that we keep our city as compact as possible by concentrating our efforts upon plans that will provide a larger number of comfortable and happy homes within a 30-minute radius of our chief business and industrial centre.

Planning Public Services



AIME COUSINEAU, C.E.

Director of the City Planning Department, Montreal

The Principal of McGill University, Dr. F. Cyril James, declared, among other very interesting things, in his address inaugurating this Extension Course on Housing and Community Planning that "the greatest indictment of the present civilization during the years immediately past, was that we did not attempt to provide a decent environment for living".

Although environmental sanitation has received in recent decades a great deal of attention with respect to water purification, general sanitation, and to a lesser extent, healthful housing, this indictment shall hold true in both urban and rural communities until such time as they will be free from slums and to a certain extent, from blighted areas. There is undoubtedly an outstanding housing problem to be solved, and this problem, as already emphasized in this course, is more economical or governmental, than technical.

In the task of prevention of disease and conservation of health, the physician and the public health engineer have each an important role. Although they exercise a separate art, as pointed out by the late Professor George C. Whipple, of Harvard University, they practise only one science, which is the science of health conservation. The art of the physician is related to human beings and includes preventive medicine. The art of the engineer and, I may add, that of the architect, is related to the environment, including the physical growth and arrangement of communities in harmony with their social and economic needs.

City planning should be greatly concerned with environmental sanitation. It is obvious that the planning of public services is ineffective unless they are related to the city plan or master plan, both of which should promote harmony between the natural and the artificial elements of a site.

Before discussing separately some of the elements of community land planning, namely public utilities, or municipal public services, I wish to establish clearly the distinction between the master plan of a city and its general or official plan. The latter is a plan indicating thoroughfares and open spaces, with their dimensions and their limits. Among other things, it shows public utility routes. In a word, the city plan gives a picture of present conditions, and sometimes of projects accepted but to be realized at a later period.

The master plan is entirely different. The future is its concern, and it shows tendencies of city development. It is a synthesis of measures to be taken in order to solve the numerous problems pertaining to the rational planning of a city, to its extension and sometimes to its partial rebuilding.

According to a legal authority, a master plan should be "an easily changed instrumentality co-ordinating improvements connected with the land". Before being completed it requires important studies bearing upon various physical, social and economic factors.

Technicians responsible for the preparation of a master plan must always keep in mind present conditions in the city, such as railroads and main traffic arteries, with their terminals, bridges, tunnels and viaducts; existing public services, water, sewerage; improved and unimproved land; location of industrial, residential and commercial zones.

From the careful study of these important fundamental data, conclusions are derived which govern the preparation of the master plan and which can alone lead to its completion with logic and certainty. If a master plan can be prepared within a reasonable period of time, its realization is a long-term objective, aimed at providing living conditions which will favor the attainment of a well-balanced social structure. The preparation of a master plan, however important, must not, as it has already been said, make planning agencies or departments lose sight of another essential objective, a short-term one, which consists in the immediate adoption of measures required to solve the most urgent problems, namely those related to zoning and housing.

A number of problems concerning public and semi-public services should be considered. These are classified by Professor Frederick J. Adams, of the Massachusetts Institute of Technology, as follows:

1. Circulation system, including railroads, rapid transit, trolley and bus lines, main highways and local streets, pedestrian ways.
2. Buildings, including schools, libraries, firehouses, police stations, municipal offices, churches, hospitals, charitable institutions.
3. Open spaces, including parks, playgrounds, reservations, water fronts, cemeteries, air-fields.
4. Public utilities, including water and sewer mains, sources of supply and places of disposal, gas, electricity, telephone.

A good analysis of the powers and limitations of public utilities is given by the late Edward M. Bassett, in his book entitled "Master Plan", published by the Russell Sage Foundation. For the better comprehension of the subject under discussion, it seems expedient to refer briefly to this study. At first, it is admitted that the purpose of a public utility is to furnish important services, such as the supply of water, gas, electricity, the disposal of sewage and solid refuse, and other services which are characterized by movement, namely: telephone, telegraph, transit and transportation. All public utilities have routes, and if distribution is not through a route, the service cannot be considered a public utility. Routes of public utilities are usually shown on master plans

and are co-ordinated with the other elements of the plan. These routes are usually, but not necessarily, placed on public land. Certain utilities are universally community-owned, for instance, waterworks and sewerage systems, while the highly technical utilities in America, such as telephone, telegraph, electricity, have been operated successfully by private corporations.

I have been assigned the task of discussing objectively before you the most important municipal public services, namely, water supply and purification plants, sewerage, sewage disposal and its relation to stream pollution; collection and disposal of household refuse, and other utilities serving the needs of a community.

It is not my intention to discuss the engineering details of design and the economics of the utilities concerned, but only their fundamental principles. They find their root in sanitary science, which is the basis of public health and sanitary engineering. This branch of engineering, we must admit, has made greater progress than city planning in the last forty years, although both are closely related in the matter of protection and improvement of community life.

Water Supply

In connection with the development of a city plan, there are numerous problems which must be considered, such as water supply and sewerage systems. These are mostly composed of underground conduits concealed below thoroughfares, but there are also visible structures which are very interesting and attractive features. In Montreal, for instance, the McTavish, the Côte des Neiges and Outremont reservoirs fit admirably into natural surroundings. There is nothing, in either the design or operation of water works and sewage plants, which "precludes such architectural treatment of the buildings and landscaping of the ground, as would make the ensemble a definite asset to the community".

A public water supply system ranks among the principal municipal undertakings and is designed to furnish water for domestic, commercial and industrial uses, fire prevention and other public purposes, such as the sprinkling of streets and the functioning of sewerage systems. It is the use of water for drinking that makes its quality of vital importance.

The essentials of a potable water supply are freedom from disease germs, turbidity, colour, odour and taste. The most dangerous impurities in water are those due to sewage pollution contained to a varying degree in all surface waters in inhabited regions.

The principal means employed to purify water may be classed as follows: storage for long periods, sedimentation or storage for short periods, aeration, filtration and chemical treatment or sterilization.

Storage removes mud, silt and other suspended matter and also reduces bacteria. However, storage may foster organisms producing bad tastes and odours. This happens whenever natural reservoirs are not properly stripped of vegetation before water is first admitted.

Filtration is employed to remove part of the organic matter and bacteria present in raw water. If organic matter is not accompanied by much suspended minerals, such as clay or silt, sedimentation will be unnecessary, but coagulation is usually resorted to as a preliminary treatment before rapid sand filtration. Sulphate of alumina, or alum, is the best coagulant used, and when added to the water, produces a flocculent precipitate which carries down with it the suspended matter, both organic and inorganic, and also bacteria.

As filtration of water does not remove all of its bacterial contents, sterilization becomes necessary. Hypochlorites and liquid chlorine are the compounds generally used and are added in very small quantities before the pumping of water in city mains.

The distribution of water is an engineering problem, but the necessity of applying to this question the principles of city planning is becoming more and more obvious, in order to determine in a reasonably accurate manner, in advance of development, the trends of both building and population. This interdependence, if properly worked out, may achieve important economies in construction, operation and maintenance.

In this respect, it is of interest to know that in unplanned and unzoned communities not benefited with effective laws and efficient agencies, the direction and intensity of growth is usually established by public utility companies for their particular needs, and the information obtained from them, when available, is of great value to planners.

Although sanitary engineers have solved the problem of supplying safe water by means of filtration, chlorination, etc., they are now confronted with the problem of preserving its sanitary qualities until it reaches the consumer. It was only a few years ago that the pollution of potable water through cross-connections and back-syphonage was found to be a potential danger, and that remedial means were adopted. For this reason sanitarians are inclined to believe that if investigations were made, today, of certain mysterious cases of enteric diseases in the light of the modern conception of sanitary science, it would be possible, in several cases, to determine the cause or origin of such cases.

Sewerage and Sewage Treatment Systems Stream Pollution

The general use of the water carriage system for removing liquid wastes in communities has made sewerage systems quite as extensive as water distribution systems. The latter, however, offer to a certain extent less planning and engineering difficulties, because water flows generally under pressure in conduits, while sewers must be graded or sloped to permit the flow by gravity, although pumping becomes necessary under certain conditions.

There are two types of sewerage systems: "separate" and "combined". The separate or sanitary sewers only receive household liquid wastes, while combined sewers, as used in Montreal, receive in addition rain and infiltration waters.

Whichever of the two systems is adopted, comprehensive plans for the whole community must be made at the outset, so that the works may be carried out gradually and systematically. No such well-conceived plan is possible unless it has been prepared concurrently with the city plan. The practice of allowing private sewers and piecemeal sewerage systems results in poor economy and possible litigation.

In Montreal and in all important communities, accurate topographical plans showing the elevations of physical features have long been prepared. It is also obvious that no important municipal works can be established without the aid of fundamental data, such as the amount, intensity and duration of rainfall, the imperviousness of the ground or pavements, and finally the amount of sewage to be disposed of, depending largely upon the amount of water consumption.

After the sewage has been brought to one or more points in a community, a safe and economical method of disposal or treatment must be devised, when required, to prevent or abate obnoxious conditions or nuisances incident to this disposal or treatment.

For the better understanding of this important subject of sewage treatment and its bearing on city planning and public health, we must know that it has for object the imitation of natural purification, when sewage is diluted with sufficient water in the receiving streams to prevent nuisances therein. The degree of treatment required, on the other hand, is governed by the use of the bodies of water into which sewage is discharged. The processes involve:

1. The separation of solids from the liquid wastes.
2. The treatment of solid matter.
3. The treatment of liquid wastes.

Time permits me only to enumerate the modes of treatment of each of the above classes of operations, such as plain sedimentation, chemical precipitation, fine screening, septic and Imhoff tanks, for the first group of processes; separate digestion tanks, sludge drying beds and incineration, for the treatment of solid matter; finally, for the treatment of liquid wastes; dilution, trickling filters, activated sludge and chlorination when the quality of the effluents requires a high bacteria reduction for the protection of downstream water supply intakes and bathing beaches.

The activated sludge process treatment has been widely used by various cities to oxidize organic matter artificially where there is not sufficient available dilution in receiving streams. This method, as defined by Ehlers, consists of aerating, by strong mechanical agitation or compressed air, a mixture of sewage and previously aerated sewage solids, known as activated sludge. Following aeration, the sludge is settled out of the sewage-sludge mixture and used over again while the sewage, which has been deprived of practically all putrescible matter, is discharged as the final effluent.

From the above general principles, we may base on the three following points the factors determining the type of processes to be used:

1. The dilution available in the receiving streams.
2. The characteristics of effluents.
3. The degree of water degradation permissible.

Sewage has to be treated whenever it constitutes a menace to health or creates a nuisance because of the pollution it contains either in suspension, in partial solution (colloidal form) or in complete solution. As I have already said, the types of processes or combination of processes vary according to the available dilution in the receiving body and the use made of the latter.

In addition to the powers of sanitary authorities to deal with the matter of abatement of obnoxious effluents and of stream pollution, mention must be made of the old basic but ignored rule of common law, known as "the right of each riparian landlord to have the stream come down to him with its quality unimpaired and its quantity undiminished".

It is generally agreed that the amount of dissolved oxygen in streams is a good index or measure of their degree of pollution by organic matter. Since the quantity of organic matter is closely proportional to the population, the amount of diluting water necessary to take care of untreated sewage has been expressed in terms of population; generally, 4 to 7 cubic feet per second of diluting water per 1,000 population are sufficient to prevent objectionable conditions in receiving streams.

It is well to mention here that outside the hazards of faulty installations, the discharge into plumbing and sewerage systems of large quantities of any substance likely to deteriorate or obstruct them should be prevented. To this end the following precautions should be taken: separation of greasy wastes by means of grease traps, condensation of steam from blow-off pipes, neutralization of acid substances, and finally interception of volatile products by means of special equipment to avoid explosions that may lead to considerable loss of life and property.

Owing to the large bodies of water surrounding the Island of Montreal, disposal of sewage by dilution only has been utilized. But the time will soon come when due consideration will be given to modern treatment with a view to the protection of bathing beaches, particularly on the shores of the Rivière des Prairies. This is an important sanitary and planning problem confronting City authorities.

May I add here that the Dominion Acts respecting the Fisheries and the Protection of Navigable Waters, as well as certain articles of the Quebec Public Health Act, provide penalties for contravention of their provisions bearing on pollution or obstruction of streams. The Quebec Public Health Act, in particular, provides for remedial measures whenever the water supply system or sewage treatment plants of any community are or may become dangerous to health. I shall again refer to this Act after a few remarks on the problem of refuse disposal.

REFUSE DISPOSAL

Due to concentrated populations in communities, the collection and disposal of various sorts of solid refuse constitute a problem of sanitary and planning significance. Firstly, with regard to house treatment, refuse

should receive the required separation, drainage and storage in proper receptacles. Secondly, the method of collection should be correlated to the length of haul and the methods of disposal. Dumps are usually located at remote points and perform useful service in the filling and reclaiming of low-lying lands.

Dumping in great rivers and on the banks of any water course is obviously a practice that must be discouraged, as floating rubbish is washed ashore. Reduction plants require technical supervision and are only found in a very few large cities. These plants are operated for the recovery of grease and fertilizer from garbage, and are usually located at points remote from centres of population; their operation has not been entirely satisfactory with respect to freedom from nuisance. Mention must also be made of hog feeding, a method that may be adopted by small communities, and of disposal at sea, used by certain coastal cities.

The failure of many methods or systems experimented with in the past for the purpose of utilizing the refuse with economy and without nuisance, naturally led to the study of the possibilities of disposal in high temperature destructors, in which gases from the burning of refuse are also completely burned before their escape in the atmosphere. There are two such destructors in Montreal and others in its vicinity. Their sites have been chosen with a view to eliminating long hauls and preventing nuisances.

In recent decades locally available dumps within short hauls have decreased, but valuable land has been reclaimed by this means of disposal. Certain city parks were formerly the sites of abandoned stone quarries.

These few notes on the disposal of solid refuse would not be complete without at least a short reference to the development and improvement of land-fill procedure, as practised in New York City in the last few years. Two methods for the disposal of refuse are used in the American metropolis:

1. Destruction by incineration.
2. Sanitary land-fills.

The latter method of disposal caused a prominent health controversy, leading to indictments of the New York Commissioners of Health and Sanitation by the Grand Jury. The citizens' protests and legal interventions have now ceased, and in 1940 more than one third of the city refuse was disposed of by sanitary land-fills.

This method consists in the excavation of sufficient soil and sand for subsequent use as covering material. The refuse is discharged into the areas thus excavated, and tractor bulldozers level off and compact the material. At the end of each day's dumping operations, a six-inch soil or sand cover is placed over this material. Finally, when the fill reaches the desired grade, a sealing cover of two feet of sand or soil is added.

This plan has made possible in New York and San Francisco, and all over the United States the reclamation of substantial areas of land hitherto unfit for use, which are now quite adequate for parks, playgrounds and airfields. The site of the 1939-40 New York World's Fair, now used as a park, was formerly known as Flushing Meadows and was mainly reclaimed land.

This method of refuse disposal has also received prominent attention in England, where it is known as "controlled tipping". It has moreover been the object of scientific research.

Reference should be made to home treatment of garbage or its disposal through the sewerage system by means of grinders attached to kitchen sinks. Grinding of garbage at central stations has also been tried in American cities, particularly in St. Louis. Proper appraisal of the merits of these systems cannot yet be made; their development and implications are moreover of great interest to municipal authorities. The Garchey system of garbage disposal by means of an adaptation of the water carriage system should be mentioned as well. In this case, an independent fixture and piping system are required. In certain large housing estates in France and England, where this system is used, all the flats are provided with an additional kitchen fixture, piped to a central station on the premises, where garbage is incinerated after the removal of surplus water by mechanical means, and the heat generated is used to provide hot water.

A word also should be said about domestic incineration, with which we are more familiar. The construction of efficient house incinerators is rather simple; they are made of independent flues, enlarged at their base and fitted with suitable grates for the burning of mixed refuse. Receiving hoppers, placed at convenient points, are provided with back aprons to close flues when doors are open. Properly constructed and operated house incinerators are advantageous from both the economic and sanitary viewpoints.

THE QUEBEC PUBLIC HEALTH ACT

The controlling authorities in the matter of water supply, sewerage, sewage disposal plants and sanitation generally, in North America, are the State or the Provincial Departments of Health. In this Province, the city engineers who prepare the plans of these systems, and the city planners whose duties are to co-ordinate public utilities with city plans, must be well acquainted with the provisions of the Quebec Public Health Act relating to "Drinking Water and Drainage", as contained in sections 56 to 71 of this Act, which I take the liberty of summarizing as follows.

No municipality, corporation, company or person is allowed to establish waterworks, or intakes for drinking water, or any device for its purification, drainage works or the installation of any plant for the treatment of sewage, before submitting plans and specifications, prepared by a graduate engineer, to the Minister of Health and obtaining his

approval; and this also applies to extensions of existing installations. Penalties are provided for any infringement of this provision of the Act. Moreover, whenever approval of the ratepayers is necessary, the plans and specifications of such works must first be approved by the Minister of Health, upon the recommendation of his Chief Sanitary Engineer.

Another section of the Act which has great importance in regional planning is that relating to joint water or sewage systems for two or more municipalities or parts of different municipalities, which, on account of their geographic situation and for the sake of their future development, must plan together for reasons of public health and economy. The Minister of Health, after investigation, must first declare that such united action is necessary.

On the other hand, any interested elector who is owner of real estate in one of the municipalities concerned, may apply to the Public Service Board for such joint action; after investigation and after consulting the Minister of Health, the Board may issue the necessary orders in this respect. It may also apportion the cost of such works and the expenses of maintenance and operation.

Any municipality ordered to comply with an order of the Minister of Health or of the Public Service Board is empowered to take the money required for this purpose from its general funds not otherwise appropriated. If necessary, it may borrow this money without being bound to observe the formalities regarding loans required by the laws by which it is governed, and when the order is given by the Public Service Board, the borrowing power of the municipality is not affected.

We find examples of the application of the above-mentioned legislation, regarding joint action, in the construction of the Little Saint-Pierre river trunk sewer and of interceptors on the south shore of the St. Lawrence river and on the Back river, involving an aggregate expenditure of several millions of dollars.

The municipal cooperation under which two or more municipalities, otherwise distinct, unite for the performance of certain functions, such as the provision of water supply and common sewerage systems, is a form of regional planning encouraged by the Quebec Public Health Act and the Public Service Board.

Large cities and their suburbs constitute metropolitan areas composed of separate governmental entities having common problems of planning and sanitation. The suburban communities gradually come under the domination of the central city and sooner or later merge with it. Montreal, for instance, covered only ten square miles in 1883; it is now fifty square miles in area and includes twenty-three municipalities annexed to the original territory. In addition to the City, the Montreal region contains fourteen municipalities which are subject to some measure of financial control by the Montreal Metropolitan Commission. As it has already been said, some of these municipalities depend upon the metropolis for their major public services, such as water supply, intercepting sewers and connecting thoroughfares.

It has been observed by the National Municipal League that a great number of political divisions in a metropolitan area tend to divert the attention of the citizens from the fact that they are members of one large community, and that the social and economic problems which concern these political divisions are largely the same for all. It is evident, in such cases, that municipalities should be integrated in such a manner as will enable a whole region to function as a single political unit. As stated by the League, something has been done in this direction. Suffice it to mention here the principal methods employed:

1. Co-operation, which may be either voluntary or forced by State or Provincial legislation.
2. Annexation or consolidation of municipalities.
3. Extension of the services by the central city to the territory outside its boundaries (as practised in Montreal).
4. Creation of special metropolitan authorities for definite purposes.

These special authorities, exercising their jurisdiction in a territory embracing an entire metropolitan area or a substantial part of it, are incorporated by law and often called "districts", such as the Chicago Park District, the Chicago Sanitary District and the Massachusetts Metropolitan District Commission, the latter comprising three divisions: water, sewerage and parks.

Experience has shown that, in any growing community, the need soon arises of determining routes for public utilities. After wise provision for streets, parks, and sites for public buildings, come demands for public reservations. And, as time goes on, the community requires the prevention of congestion and improper use of buildings, through zoning. All these things must be accomplished by specially trained technicians, and this justifies a final digression from my discussion on public utilities.

City planning practice is not limited to a single profession, and many technicians in various fields have made important contributions towards the orderly and efficient growth of cities or their progress.

The city planner, to be successful, has to be, above all, a specialist in co-ordination; he must know his own limitations and be prepared to call for special advice on engineering design, architecture, landscaping, etc., as applied to the layout or extension of communities. The architect, in particular, with his sense of harmony and beauty, must have some knowledge of engineering, and vice-versa, the engineer, with his sense of scientific knowledge and analysis of facts, must possess, in addition, some of the characteristics of the architect, in order to be a successful planner.

We must also agree with Harold MacLean Lewis, of the Regional Plan of New York, who believes that good planning requires the co-operation of three different groups of individuals. First, the city officials who have a background of long and accurate knowledge of their community; second, the citizens' organizations; third, the professional planner, whose aim is not only to design but also to preserve the beauty of

a site. With the aid of the first two groups, the planner can draw up a plan or revise it, in conformity with the highest standards that the science of city planning is able to develop, as he has always in mind that the region and the neighbourhood, as well as the house, constitute the home and social life.

The Planning of Public Housing



By WARREN JAY VINTON

Chief Economist, Federal Public Housing Authority

In this paper on the Planning of Public Housing I will limit myself to telling you how we have attacked our problems in the United States and the lessons which we have learned. I will concern myself primarily with the provision of public housing by governments, both Federal and local, for low-income families for whom private enterprise cannot, or at least does not, provide decent housing.

It is a matter of general knowledge that the people of the United States are not housed in the manner to which their resources of land, materials, and skills entitle them. The lack of decent, sanitary, and commodious shelter at prices within their means imposes special hardships on millions of low-income families. Nor have the workers who produce housing earned a steady and sufficient livelihood year in and year out.

The statistics of these failures are abundant and familiar. Our recent Census of Housing, taken in the spring of 1940, showed that at least 29% of our urban dwellings were substandard — they either were so run-down as to require major repairs or so obsolescent that they lacked decent plumbing. The median rent in these urban substandard houses — the measure of what low-income families can afford to pay — was only \$12 per month; yet the monthly cost of minimum housing produced by private builders was nearly three times this figure. The proportion of substandard housing in rural and farm areas was even greater than in our cities, and the disparity between rent-paying ability and the cost of housing production was even more accentuated.

I will tell you what we have actually done in moving from the idea of public housing to the actuality of land, bricks, and mortar in the service of living and breathing human beings.

In developing our public housing program we have been constantly guided by three general principles.

First: We hold that private enterprise has a primary responsibility, through individual ownership or the provision of rental dwellings, for the housing of all income groups which it can satisfactorily serve. Government should step in only when private enterprise fails to provide decent and adequate housing for any group of people at costs within their means. Government should supplement private enterprise; it should never invade a field where private enterprise is functioning satisfactorily.

Second: Within the field of public housing we must always remember that we are planning for use, and use at low rents, rather than for profit. The speculative builder all too often turns out a superficially attractive but inherently shoddy product, which he considers himself well rid of once it is sold. Public housing, however, is built for use over a long term of years during which it will remain in one ownership, that of the public. It must be well planned, so that it will be suitable for use under varying future conditions, and be well built, so that the cost of repairs and maintenance will be at a minimum. Such planning for use rather than immediate profit imposes new concepts of planning on the designers of public housing.

Third: As far as possible, public housing should conduct its activities through the ordinary channels of private trade and business. Land should be bought at fair market prices through private realtors; private architects and engineers should, in general, be retained for the design of public housing; and construction should be carried out by ordinary contractors, bidding on the open market. Materials should be bought through usual channels, and labor should be employed under standard working conditions and receive prevailing wages. Only when it comes to the actual management and administration of completed projects is it advisable for government to undertake operations with its own staff, and even in this field it is generally best to have major repair and maintenance work done through ordinary contractors. Working thus through the regular channels of trade has proved to be the most convenient and expeditious way of producing public housing; we believe it to be the most economical method; and, last but not least, it certainly minimizes opposition from private interests.

I come now to my principal topic, the planning of public housing, and propose to treat this under four headings:

- 1 Planning of organization and administration.
- 2 Social and economic planning.
- 3 Financial planning.
- 4 Planning of development and management.

I feel no compunction in discussing, at a school of architecture, three types of planning which must of necessity precede actual design. The modern architect or engineer recognizes that he must have an intimate knowledge of the conditions within which he is to work. If he is to design it successfully, he must know how a low-rent project is to be run, the type of tenants who are to occupy it and what their needs are, and the cost limits both in construction and in maintenance which he must set for himself. Without this essential knowledge, he labors in vain who seeks to build public housing.

I. Planning of Organization and Administration

Housing is primarily a local problem. Housing needs are local, and the desires and requirements of families vary from place to place. Though the Federal government, because of its superior financial

resources, takes a large share in the solution of housing problems, the primary responsibility nonetheless rests with the locality.

We have learned this lesson in the United States through bitter experience. The Public Works Administration from 1933 to 1937 undertook the provision of public housing as a Federal operation, going directly into the cities and there building and managing projects itself. The results were disillusioning; there was mutual distrust between Federal and city officials, and an almost complete lack of local support and responsibility. In 1937 a drastic change was made with the passage of the United States Housing Act which placed the primary responsibility for the low-rent program in local housing authorities, and restricted the role of the Federal government to the giving of financial and technical assistance. The exigencies of war have forced a temporary reversion to a large measure of Federal operation, but as quickly as possible we plan to go back to the sound policy of relying on local initiative for the production and management of public housing.

Legislation in 39 of our states now authorizes the establishment of local housing authorities by cities or other local governments such as counties or groups of counties. These local housing authorities generally consist of five persons, appointed by the Mayor or other local executive. In all states but one the local housing authority is a quasi-independent public entity, with power to build and operate public housing. It enters into contracts in its own name, and issues its own bonds or other obligations. It does not, however, have any taxing power, and its obligations are not obligations of the city or local government and are not counted in the local bond limits.

We now have over 600 of these local authorities in the United States. Some are skilled and experienced authorities, others are new and untried. Some are small, while others in centers of war production are in charge of very large undertakings running up to 20,000 family dwellings accommodating half as many people as does the whole city of Quebec.

These local authorities own substantially all of the 160,000 dwellings which have been built under the U. S. Housing Act. They have been responsible for their construction, aided by Federal loans; and they operate and manage them, aided by Federal subsidies for achieving low rents.

The U. S. Housing Act was passed in 1937 to extend assistance to local housing authorities, which at that time already numbered over forty. This Act was administered by the United States Housing Authority until February 1942, at which time the President set up the National Housing Agency to be in over-all charge of all the housing activities of the Federal government. All federal activities connected with public housing were grouped together in a constituent of the NHA, known as the Federal Public Housing Authority. The FPHA took over the United States Housing Authority and the administration of the U. S. Housing Act, as well as all other public housing of the Federal government except rural farm housing and housing on Army and Navy posts and reservations.

Since 1942 the FPHA has devoted its resources almost exclusively to the production of housing for war workers, and is now in charge of 575,000 such dwelling units. This is in addition to the low-rent program which continues in operation although new construction of low-rent housing has been stopped for the duration.

Our low-rent public housing program is based on Federal-local cooperation; its success depends upon a local assumption of primary responsibility and a restriction of the Federal role of facilitating and aiding local operations.

The FPHA, in extending financial assistance to the programs of local authorities must, of course, approve the size and general character of such local programs, but should never itself attempt to make them. The localities must determine their needs and formulate their own proposals. The national government should never attempt to tell the various localities how much housing they need, of what types, for what income groups, whether private or public, or where located. Any such attempt at centralized planning would be repugnant to our traditions of democracy, and would be deeply resented by the localities.

In the Federal-local relationship, it is imperative to foster and cultivate local responsibility and initiative. We must encourage local authorities to seek new solutions of old economic and social problems, and must encourage local architects and engineers to invent new techniques and create new types of designs. Only thus can there be rapid advance in the art and practice of public housing.

II. *Social and Economic Planning*

When the United States first embarked on its public housing program, we did so with little information as to actual needs and with only the vaguest of objectives. Today we have a sure knowledge of housing needs based on the wealth of information in the Housing Census, supplemented when necessary by special surveys; our objectives have been formulated and given content.

The proper function of public housing, as we see it today, is to provide adequate housing for low-income families who now live in substandard housing and are unable to afford decent private housing and to provide such housing at rents approximately equal to the former housing expenditures of these families.

Public housing must carefully restrict itself to taking tenants only from substandard housing. In respect to every family admitted the local authority must certify that its former dwelling was substandard according to criteria adopted by that authority.

In general families living in substandard housing are families of low income who cannot afford decent privately-owned housing. However, in order to assure that public housing goes only to families who need it, an examination of the income of every family is made before admission. The U. S. Housing Act requires that the family income may not

exceed five times the rent (including the cost of all utilities), except in the case of large families where the income may run up to six times the inclusive rent.

Public housing must re-house low-income families at rents approximately equal to those which they were accustomed to paying. It does not generally seek to reduce their rents, for this would result in making available for other items of the family budget, such as food and clothing, moneys which have been set aside for housing subsidy. On the other hand, it must avoid increasing accustomed rents, since this would deplete the already insufficient amounts which low-income families have available for food, clothing, and other items. The proper aim of public housing is to provide decent housing at a figure which would otherwise suffice only for the rent of substandard slum dwellings.

In formulating its housing program a local authority must decide what income groups it is to serve and what rents it will charge.

Its top income limit should be not higher than the income at which a family can afford the rent of decent and adequate private housing. In practice, the top limit for admission to public housing should be somewhat below this figure in order to make sure that public housing does not compete with private. Top income limits will, of course, be higher for larger families.

Public housing has not, in general, set any lower income limits for admission. It should not, however, attempt to serve as a form of general relief for families whose incomes are below minimum subsistence requirements. Such families need financial assistance not only in the provision of decent housing but in the provision of every necessity of life. Their income should be raised to a minimum subsistence level through social security or general relief. Once they are in possession of a minimum subsistence income, it is the function of public housing to provide them with decent homes in place of the inadequate and substandard housing they could otherwise afford.

In practice we find a very considerable range in the incomes of the families eligible for admission to public housing in any locality. The rents which these families can afford to pay vary with the family's income. In order to serve the range of families within the low-income group, local authorities have generally established three or four grades of rent, and have set appropriate income limitations for each rent grade. At the time a family is admitted a determination is made of its income and the grade in which it falls, and the rent is fixed accordingly. Each year the income of every tenant is re-examined and if a substantial increase or decrease has occurred, the rent is changed to that of the grade in which the income now falls.

In formulating plans for its whole program or for a specific project, a local authority relies largely on census data showing the extent of substandard housing and the rents paid by its occupants. It is thus possible to estimate the number of families to be served at various rents and the total anticipated rental income. Before proceeding with any

proposal, the feasibility of achieving the necessary low rents must be tested in relation to expected operating costs and the subsidies available from the Federal and local governments.

Local authorities in planning their programs must take account of the racial groups which they intend to serve. In the United States, especially in the South, the need for decent housing is very great among the Negro population; and the local authorities in the South have, in general, provided about equal numbers of dwellings for white families and for Negro families.

Public housing should place special stress on the housing of families with children. The influence of housing conditions for good or for bad is greatest in the impressionable years of childhood and youth. As long as public housing is not available for all who need it, the national welfare is better served by devoting it to families with growing children rather than to adult families, whose life patterns have already been formed.

Moreover, it is much more economical to house large families than small. One kitchen and one bathroom is needed for each family no matter what its size; larger families require only additional bedrooms and increased living space, but no increase in the very expensive items of bath and kitchen. Hence the per capita cost of re-housing large families is much less than that of smaller families.

In concentrating on large families and on families with children, public housing uses its limited resources so as to serve the maximum number of persons and those who will derive the greatest benefit from decent housing conditions.

One of the most difficult of the problems confronting public housing is the choice between clearing and rebuilding old slum sites or building on vacant land.

There is great sentimental appeal in a program which replaces old dilapidated slums with new and attractive groups of modern dwellings. Old central slum areas are also usually more accessible to employment opportunities, to schools, and to shopping and recreational facilities. On the other hand, the acquisition costs of old slum areas, especially densely built-up slums in larger cities, are exorbitantly high; and unless a separate subsidy is available for slum clearance (as suggested hereinafter) public housing may be faced, either with site costs running up to \$4,000 or \$5,000 per unit if rebuilding is done at proper densities, or with a repetition of the old sin of overcrowding in order to keep site costs per unit down to some reasonable figure. Moreover, when a city is confronted with an acute housing shortage it is almost impossible to undertake the tearing down of a large slum area because of the difficulty of re-locating present tenants during construction.

Vacant land is attractive because of its low price. It offers a welcome freedom to designers in laying out sites and in planning proper community facilities. The low price of land makes it possible to allow protective areas against the encroachment of blight. On the other hand, the provision of utility extensions, of new schools, and of other municip-

al facilities imposes costs on the community which may not be incurred when slum sites are used. Moreover, vacant sites may not be as accessible as old slum sites, and their development lacks the dramatic appeal of slum reclamation.

Whether a project be built on a slum or on a vacant site, the U. S. Housing Act requires the elimination of substandard dwellings equal in number to the number of units in the new project. In the case of a redeveloped slum site this requirement is automatically fulfilled to the extent that substandard dwellings are torn down on the site. The balance of any elimination not accomplished on site is carried out either by the destruction or by the compulsory closing or repair of other substandard dwellings in the locality.

In practice about half of our low-rent projects have been built on slum sites, and about half on vacant sites. A balanced program including both slum and vacant sites seems to be desired by most localities.

III. *Financial Planning*

There are two principal operations in the financing of public housing; first, the financing of capital costs, and second, the provision of subsidies to reduce rents to a level which low-income families can afford. The financial system used under the U. S. Housing Act is essentially similar to that used in England; the Federal Government makes necessary loans for capital costs, and pays annual contributions to meet its share of the necessary subsidies.

Under the U. S. Housing Act the FPHA is authorized to make loans to local authorities up to 90% of the cost of their projects; the loans must be repaid within 60 years and the interest charged is equal to the rate of interest being paid by the Federal Government for long-term loans at the time the contract is made, plus $\frac{1}{2}$ of 1%. The average interest rate on outstanding permanent Federal loans to local authorities is 2.65%.

The capital funds which the FPHA loans to local authorities are obtained by it through the issuance of its own bonds. The first issues of FPHA bonds were sold to the general public, but since the war the needs of the FPHA have been met by short-term loans from the U.S. Treasury at 1% interest. Since this rate is well below that which FPHA receives on its loans to local authorities there is an interest profit each year which now suffices to cover the entire administration and overhead expenses of the FPHA.

Local authorities are required to raise at least 10% of the cost of their projects from sources other than the Federal Government. As a matter of fact, the local authorities have sold bonds to private investors to cover 34% of the costs of their completed projects and have required Federal loans for only 66%. Local authorities have sold their bonds to private investors on very attractive terms; average maturities run from six up to twenty-five years, and the average interest rate has amounted to only 2.08%. This is a remarkably low figure and bears witness to the excellent reputation which the local authorities have established in financial circles.

The Federal subsidy to low-rent housing is met through annual contributions. This system is far superior to the alternative plan of making a capital grant to cover all or a substantial part of the first cost of a project.

Under the plan which we are using, annual contributions are paid each year to cover the difference between the rents which low-income families can afford and the annual costs of the project including debt service, operating expenses, and payments in lieu of local taxes. If rents decline or operating expenses go up, the annual contribution may be increased up to the maximum authorized by law. If rent-paying ability increases or if operating costs decline, the federal annual contribution is correspondingly decreased. The flexibility of this system permits adjustment to varying needs and economic conditions. In contrast to this, a subsidy given in the form of a capital grant is given once for all and no future adjustment is possible.

Moreover, the annual contribution system is a pay-as-you-go system; the subsidy required each year is paid in that year, and covers that year's benefits from public housing to the community and to low-income families. Under the capital grant system, the subsidy for the entire life of the project is paid in total at the project's inception instead of being spread over its useful life. The very large sums required initially as appropriations under the capital grant system would certainly militate against legislative authorization of as large a program as is feasible under the annual contribution system.

Under the U.S. Housing Act the FPHA is authorized to contract for the payment of annual contributions to a project over a period of 60 years. The amount of the contributions is limited to the amount necessary to achieve low rents. The maximum amount that can be paid on a project in any year is fixed as a percentage of the development cost of the project. This percentage is equal to the interest cost of money to the Federal Government at the time the contract was made, plus 1%.

This is a top limit which cannot be exceeded in any year. In practice, however, the local authorities have required far less than the maximum which we are authorized to give them. For all projects on which annual contributions are being made the actual payments now required amount to only 66% of the authorized maximum. These annual contributions cost the Federal Government just under \$100 per year per family, or about \$2 per person per month.

The total funds which were appropriated and paid out for annual contributions up to June 30, 1943 amounted to only \$24,600,000. Since all administrative expenses of FPHA are paid out of its interest earnings, this sum of \$24,600,000 represents the entire cost to the Federal Government of the low-rent program under the U.S. Housing Act since its inception.

The only other cost of the low-rent program to taxpayers is the cost of local contributions made through the exemption of public housing projects from real estate taxation. By this exemption local communi-

ties grant assistance toward achieving the low rents necessary to re-house families from the slums, which rents could not be reached if full *ad valorem* real estate taxes had to be paid. The U.S. Housing Act requires that, to secure Federal assistance for low-rent slum clearance projects, a community must make local contributions amounting to at least 20% of the actual Federal contributions. This it may do by cash payments, by tax exemption, or by tax remission; all localities have chosen tax exemption.

Although state laws have, in general, granted complete tax exemption to public housing projects, local housing authorities have not generally taken full advantage of this and have made substantial payments in lieu of taxes. Payments in lieu of taxes are now authorized in the sum of 5% of the shelter rents collected on projects; but we are now contemplating a liberalization of this formula and will probably authorize payments equal to 10% of shelter rent.

In addition to making these payments in lieu of taxes, public housing projects further reduce local government expenditures by relieving the communities of burdensome costs imposed by disease, juvenile delinquency, and crime, to say nothing of costly fire and police protection and other city services which are far greater for areas of bad housing than for other sections of the community. Municipal officials throughout the country attest to this reduction in costs from slum clearance and rehousing of low-income families.

Although exemption from *ad valorem* taxes is recognized as a real contribution towards achieving low rents, the actual *out-of-pocket cost* to a locality of its assistance to public housing is not the difference between *ad valorem* taxes and the payments made in lieu of taxes. Exemption of public housing from *ad valorem* taxes does not entail an equal loss of revenue, for such taxes had never been paid on these projects; and indeed the projects would not have been built without this exemption being available.

In determining the actual *out-of-pocket cost* of local tax exemption, we must bear in mind that all taxes on residential property are paid out of the income of families living therein; in the case of rented property, taxes are an indirect payment of the tenants made by the landlord out of the rents which he collects. The tax revenue lost to a local community through tax exemption of public housing is, therefore, the amount of taxes which would have been indirectly paid to the city by the low-income tenants if they had continued to live in private substandard housing. From this must be deducted the payments in lieu of taxes made by public housing, and account must also be taken of the savings to the locality by virtue of the lessened cost of municipal services to low-rent projects. Measured in this correct and realistic fashion, the actual *out-of-pocket cost* to local communities for their assistance to public housing will not average more than \$15 per dwelling per year.

As I pointed out before, one of the greatest difficulties confronting the clearance of old slum areas is the high site cost both of the land and the old buildings. These high prices result from the substantial

incomes made out of the exploitation of slum property. This exploitation includes the over-dense original development of the land, the overcrowding of families into insufficient room space, and above all the exploitation resulting from an almost complete neglect of maintenance and repairs. Localities have permitted these exploitative practices to continue through the years, and have sanctioned the values based on them through the high assessments placed on slum properties.

In large cities the acquisition costs of congested slum areas are so high that redevelopment projects, if planned with a decent density, would have site costs running up to as much as \$4000 or \$5000 per new dwelling. Private builders, who can get substantially equal rentals for dwellings built on vacant sites costing only a fraction of this amount, will refrain from undertaking such slum redevelopment, and will continue to build on outlying sites. If public housing should attempt to redevelop such expensive slum areas, a major part of the subsidy funds available for providing decent housing would be drained away in the payment of interest and amortization on site costs.

Any attempt to force the sale of such slum areas at less than prices established by usage would never be sanctioned by the people or by the courts of the United States. If we are to have slum clearance and slum redevelopment, the slum sites must be purchased at going prices. The difference between such prices and the value of the land in a new and socially reasonable use is a social cost which should be borne by the public at large as a part of the cost of undoing evils too long sanctioned by the public itself.

It would seem that a separate subsidy should be provided for this purpose. Bills seeking Federal aid in writing down land costs to value in use are now before our Congress. Their principal support up to this time has come from private groups, but it is to be expected that public housing will also advocate such a subsidy for slum clearance, which will be separate and distinct from the subsidy for low-rent housing.

IV. PLANNING OF DEVELOPMENT AND MANAGEMENT

The first decision which a local authority must make in the physical development of a project is whether to build on vacant land or to clear and rebuild a slum area. In either case, the most important criterion in the selection of a definite site is its accessibility to the places of employment of expected tenants. Schools, shopping centers, and recreation facilities must also be accessible or their provision be assured. Accessibility, especially to employment, is far more important in the case of low-income families than in the case of families who can afford the time and cost of traveling long distances to work.

Public housing should be located only in areas which are potentially capable of being developed into good residential neighborhoods. Sites should be avoided which are subject to smoke, odors, or intolerable noises, the sources of which will not be removed through redevelopment. It is an altogether mistaken notion to think that low-rent housing may be located in undesirable areas which are good for nothing else.

If a slum site is to be chosen, studies must be made to see that the structures included are so bad as to warrant their complete destruction. Careful estimates of probable acquisition costs must be made to ensure that this element of cost will not be disproportionately high. In practice the FPHA has not approved projects where the cost of land exceeded \$1.50 per square foot, except in a very few large cities where the municipality itself bore some share of the land cost.

We have found it desirable to acquire real estate through voluntary purchase as far as possible. As soon as a site has been definitely chosen accurate title information is obtained on all parcels. Appraisals of the fair value of the various parcels are next made by qualified realtors. Other realtors are then retained to take options, provided that they can be obtained within the appraised values. In taking options, we have found it wise to start with the parcels on which it is easiest to negotiate and which are apt to be cheapest in price, thus setting a precedent for subsequent options, and for condemnation where necessary. Local authorities have the power of condemnation, but this is resorted to only in the last instance where exorbitant prices are demanded or where there are arbitrary hold-outs.

In the design of public housing the local authorities have used private architects and engineers both for site planning and for architectural work. They work under the usual types of contracts, generally on fixed fees. These fees, which have been negotiated with the professional associations, are based on percentages of cost—percentages which, because of the repetitive nature of the projects, are very much lower than those which prevail in other types of work.

Site planning of public housing is a new field and offers problems unheard of in traditional academic landscape engineering. Public housing must be planned for use; its open spaces must be usable as well as beautiful.

In the planning of low-rent project sites we have found three things which must particularly be avoided:

1. Grandiose and pretentious plans.—The *grande allée* of Versailles, with its long unclosed vistas, has no place in public housing.
2. Regimentation.—We must avoid a monotonous regimentation of similar units uniformly spaced and uniformly oriented. The barrack-like appearance of any projects thus designed has been found repulsive both by the occupants and by the public at large.
3. Complication.—The use of involved street layouts with serpentine curves unrelated to contours, and the introduction of meaningless cul-de-sacs, may complicate a site plan to a point where inhabitants frequently lose themselves and where no outsider can possibly solve its intricacies. A readily understandable simplicity should always be sought.

The essence of a good site plan is that it be on a human scale and that it seem reasonable and understandable to people going about the

project on foot. Grand plans, whose symmetry can only be appreciated from the air, have no place in public housing.

We have not been particularly successful in planning our land so as to give individual families the privacy which old-fashioned back yards gave them. To be sure, if enclosed back yards are used there is a tendency for rubbish to accumulate. But the solution is not to be found in setting houses on the landscape with so little privacy that the occupants, once outside the door, are as exposed as in a goldfish bowl. The laying out of a project so as to achieve a nice balance between openness and privacy is a challenging problem for the site planner.

The automobile also presents an unsolved problem in the site planning of public housing projects. It has not generally seemed wise to go to the expense of providing garages; even where they are used, they have often been eye-sores and have seldom been properly integrated into the general plan. Where outdoor parking has been relied on, it has been difficult to locate parking spaces so as not to destroy the outlook from a large number of houses and impair their peace and privacy. We still await a creative solution of this problem.

Public housing should be residential rather than institutional in character. It should give to every family a maximum of privacy, peace, and quiet. It should avoid any regimentation of family life or family habits.

The design of dwellings for low-rent projects involves striking a balance between desirable standards of space and equipment on the one hand, and economy on the other. In some respects, I think we have moved too far in economizing on space and room sizes, especially those of living rooms and kitchens which have been kept to very low minimums; we have not provided as much storage space as most families want; and we have very rarely provided attics or basements, although these have a real value in family life in providing storage and work space and a place for indulging hobbies or letting off steam.

We may also have moved too far in economizing on equipment. We have built many projects with individual furnaces and many with old-fashioned space heaters, neglecting the fact that central heating for the project as a whole may involve little or no more current expense, gives greater freedom to the family, and promotes control of smoke nuisances. In many projects we have not installed mechanical refrigerators, although the cost to tenants of ice is almost sure to be greater than the cost of electricity purchased at wholesale.

I am convinced that penny-pinching in the development of public housing is an unwise economy. It gives rise to present discontents and may result in an early obsolescence. The slight additional outlay involved in adequate standards of space and equipment will be shortly forgotten, but the dissatisfactions from family crowding and from inadequate facilities will remain to plague a project for its whole life.

All construction work under the U.S. Housing Act has been carried out by private building contractors. The local authorities have let all contracts on a lump-sum basis pursuant to open bidding and award

to the lowest bidder. We believe that through such open competition the local authorities have secured the most advantageous possible prices for their projects.

Construction is inspected by the local authorities as the work progresses, and the FPHA checks the inspection to assure itself that plans and specifications are being complied with. In the early days of public housing there was some complaint by contractors that inspection was too meticulous and that they were required to do work with a finish and perfection greater than that required in ordinary practice. We believe that inspection in recent years has not been more exacting than commercial practice, and there has been no tendency to increase bids because of government ownership.

Under the U.S. Housing Act all persons employed on the construction of a project must be paid prevailing wages. The wage rates are set before bids are asked, and all contractors are informed as to the minimum rates which they will have to pay.

It is important that plans for the management and operation of a project be made at the earliest moment and that these be taken into consideration in its physical design. Local authorities have generally found it advisable to have management represented on their staffs during the planning period.

Income limits and rents should be set for the various rent grades, operating budgets be prepared, and the conditions of tenant eligibility be fixed by the time construction is started. This will allow time for taking tenant applications, verifying them, and accepting those eligible applicants who are most in need of public housing, by the time the first dwellings are ready for occupancy.

Management must see to it that the project is in decent order and well-maintained from the moment when the first tenants move in. Good upkeep, the maintenance of grounds, stair halls, and other public spaces in clean condition, the prompt making of necessary repairs—all these distinguish public housing from the slums. Good upkeep is something which must be watched morning, noon, and night. The greatest emphasis must be placed on maintenance in the early months when tenants have just come from the slums; if once a project begins to look slipshod and run-down, it is an almost super-human job to get it back into decent shape again.

An important innovation in public housing has been the setting up of cash reserves to cover increased costs of repairs, maintenance, and replacements as projects grow older. In commercial practice such cash reserves are seldom, if ever, set up. In early years owners generally withdraw all the revenues which their properties produce; the all-too-frequent result is that in later years when rents tend to decline funds are not available for necessary repairs and replacements; and the consequent neglect of these items leads to deterioration and the onset of blight. In our public housing program we estimate the average cost of repairs, maintenance, and replacements over the life of each project and include this amount in the budget used in setting rents. Each year an amount equal to the difference between this aver-

age cost and the actual expenditures for the year is set aside in a cash reserve. In later years when the costs of repairs and necessary replacements of equipment increase, this reserve will be available to cover such increases without the necessity of raising either rents or subsidies.

Another important innovation in the public housing program, and one which is important in the design stage, has been the wholesale purchase of utilities. Electricity and gas are generally purchased at wholesale rates at a master meter on the project boundary. The utility distribution systems within project boundaries are installed and maintained by the project; and the cost of the utility services is included in rent, without the necessity of individual metering. The wholesale rates thus obtained and the economies made in distribution have made it possible to supply tenants with adequate utility services at only a fraction of the charges they formerly paid.

V. CONCLUSION

The record of public housing in the United States is one of which we are proud, and one which we think will commend it to our people and warrant a large extension of the program in the post-war period.

The low-rent housing program has not been costly or extravagant. The average net construction cost of the dwellings themselves has amounted to \$2,709. The over-all cost per unit, including all land, site improvements and non-dwelling buildings, has been only \$4,284. An additional cost per unit of \$375 which does not properly enter into the cost of new housing has been incurred for the purchase of old structures torn down on slum sites and for a small amount of land held for future development.

These are exceptionally low figures when it is remembered that: (1) the majority of these projects have been built in the larger cities where building costs are high; (2) the projects include their own utility systems, as well as community buildings, recreational facilities and playgrounds, none of which are usually included in the costs of private construction; (3) they are built for a life of at least 60 years, using good materials and sound construction to ensure low maintenance cost; and (4) prevailing wages have invariably been paid for all labor.

The local authorities have set up new records of economy in the cost of operating low-rent projects. The monthly cost per dwelling for projects reported on this year were as follows:

Management, operation and current repairs, excluding utilities.	\$ 6.25
Cash reserves for future repairs, maintenance and replacements, and for vacancy and collection losses.....	3.90
Interest and amortization on project cost.....	12.96
Payments in lieu of taxes.....	.89
Total monthly expense.....	24.00
LESS: Contribution from Federal Government.....	8.31
Rent collected per month, excluding utilities.....	15.69

These costs compare favorably with the lowest costs of comparable private operations, especially when it is remembered that \$3.90 is included each month for setting up cash reserves for repairs, maintenance and replacements and for vacancy and collection losses.

The low-rent program has carried out its purpose of housing low-income families at rents they can afford. The average family income at the time of admission to these projects was only \$818 per year; the rent charged them at admission was substantially what they were paying for their old dwellings and averaged just over \$12 per month, excluding utilities. The income of these families has naturally tended to rise during the war and rents have accordingly been adjusted upward; as a result, rents last year averaged \$15.69 per month, excluding utilities.

All of the tenants in low-rent housing have come from slums or other substandard housing, as certified by the local authorities. The program provides for the elimination of old slum dwellings equal in number to the new houses provided, and substantially all of this elimination has already been accomplished.

The whole low-rent program has been carried out by local authorities working under democratic patterns of local control, and operating through usual channels of business. Public housing has not in any sense competed with private enterprise. All of the housing produced by it has been in addition to and not in substitution for housing produced by private builders. Since public housing serves only families who cannot afford new privately produced dwellings, it does not in any way diminish the amount which private enterprise can and should produce for those who are able to afford its product. The activities of public housing constitute a clear net addition to the total national product and provide new outlets for labor, material, land, and capital which would not otherwise find productive utilization.

Financial Planning at the Community Level



By BENJAMIN H. HIGGINS

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In the opening chapter, Dr. James has outlined the economic analysis underlying the proposal, now generally accepted by economists, that maintenance of an optimum level of employment throughout the post-war period will require a substantial volume of public investment. He demonstrated that the postwar economic problem consists largely of replacing war expenditures with other kinds of expenditure, private or public. Stated in closer accord with its long-run aspects, the essential economic problem is to absorb into investment all the savings individuals and corporations want to provide at an optimum-employment level of national income. After all efforts have been made to stimulate private consumption and investment, any gap between the volume of investment needed to produce optimum employment and the volume of private investment forthcoming must be filled by public investment.

Federal participation in financing the required volume of public investment presents its own range of problems. Public investment should be paid for in a manner that does not discourage desirable private investment or consumption, and which nevertheless does not permit inflation. Elsewhere, I have tried to show how delicate a task it is to devise a Federal fiscal policy to meet these ends¹; I shall not discuss this complex problem here. Suffice it to say that efficient financial planning at the Federal level would probably produce a combination of tax concessions to business enterprise, retention of fairly high personal income taxes, borrowing from the general public, and a modicum of "modern greenbackism", as Professor Hansen calls government borrowing from the banking system. It would almost certainly result in some system of Federal grants-in-aid to provinces, and possibly to municipalities as well. In what follows, I shall concentrate on provincial and especially on local aspects of financial planning, on the assumption that the Federal fiscal problem has been solved in a satisfactory manner. To save words, the term "community" will be used to mean any political unit smaller than a country.

1. "Postwar Tax Policy", *Canadian Journal of Economics and Political Science*, August and November, 1943.

I. *Determining Financial Capacity.*

The first step in financial planning for a province or locality ("community") is to estimate the amount of revenue that will be available. To accomplish this task in a satisfactory manner, an intimate knowledge and understanding of the community's financial, legal, economic and social structure is necessary. Wherever possible, the direction of the financial analysis should be assigned to community officials who are familiar with sources of relevant data and who have the technical knowledge necessary to analyse them. When an adequate supply of experience and professional training is not available within the community, the assistance of outside experts may be desirable.

Once sufficient personnel has been assembled, the first job is to obtain a thorough understanding of the financial history of the community, over a period long enough to give a picture of normal trends. Collection of data is a necessary basis for such an understanding. These data can be divided into two groups, financial and socio-economic data. Examples of the sort of data that should prove useful follow:

A. Financial data.

Sources of Funds:

- (1) Source and amount of annual general tax revenues;
- (2) Source and amount of special purpose taxes;
- (3) Amount, source and purpose of grants-in-aid;
- (4) Amount and sources of other current revenue;
- (5) The purpose, type, amount and status of borrowing and indebtedness.

Outlays:

- (1) Expenditures for ordinary, normal operation by departments or activities;
- (2) Interest and amortisation on public debt;
- (3) Capital outlay by departments or activities;
- (4) Non-construction extraordinary expenditures by departments and activities.

Other Data:

- (1) Assessed valuations;
- (2) Tax delinquency;
- (3) The rate of interest at which new issues are floated annually.

B. Social and Economic Data. Significant social and economic data include the following:

- (1) Population trends in size, geographical and age distribution, composition, etc.
- (2) Employment and Unemployment.
- (3) Other Business and Industrial Indices, e.g. department store sales, factory payrolls, volume of bank loans, vacancy ratios, foreclosures, business failures, etc.

- (4) Property Assessment Methods.
- (5) Descriptive material on pertinent political, social, geographic and economic development of the community (natural resources, transportation, legal boundaries, etc.).

When sufficient historical data have been compiled, they should be organised in a manner that will reveal pertinent factors bearing upon past and present trends. Each category of data should be of like composition, year by year, for comparative purposes. In so far as possible, the data should be presented in tabular and graphic as well as descriptive form, to permit close analysis and visual interpretation of the materials.

Since the timing of public expenditure is such an important element of economic policy, and since integration of provincial and local with Federal fiscal policy is so essential to the maintenance of economic stability, one item of particular interest in the financial history of a community is the relationship between its financial policy and general economic conditions. How has the expenditure of the community varied over the business cycle? Has the community borrowed during the periods of depression, as well as periods of prosperity? Does it as a rule borrow money for major capital improvements? Does it pay for part or all of its capital improvements from current revenue? Does it have an established technique for paying off indebtedness through the use of a sinking fund, or the issuance of serial maturing bonds? Can it legally accumulate reserves in good times for use in bad times?

The next step is to forecast the community's capacity to undertake new capital improvements and public services.

Forecasts depend upon

- (1) Estimates of future revenue
- (2) A statement of *known factors* which necessitate definite future outlays, *independent* of programming.

Forecasts of community revenues and expenditures into the future requires data of a sort somewhat different from the historical material discussed above. In order to decide whether trends in revenue can properly be projected, it is necessary to know something of the general economic position of the community and of the region in which it is located. What are its major industries? Are these industries expanding in the country as a whole? Are there any factors likely to lead to emigration or immigration of industry out of or into the community? What resources are located in the region? What sort of labour supply? How does the war affect the present and future prospects of the community? What is the condition of the capital equipment of the region, including housing? Are public services adequate? What legal debt limits exist? Is the present tax burden heavy? Admittedly, conditions in many communities make such forecasts extremely difficult, but the best judgment possible should be brought to bear upon such questions.

Among known necessary expenditures, interest and amortisation on outstanding debt, and "other ordinary" expenditures that must be continued, such as expenses of a minimal government organisation, will be of paramount importance. "Ordinary" expenditures are those that are regular and recurrent, and more or less constant from year to year.

In addition, factors likely to make other types of expenditures necessary or desirable should be presented. For example, a movement into suburbs may result in a problem of blighted areas; immigration of industry may make necessary new streets, schools, etc.; acceptance of Federally financed development projects may involve municipal participation and increased operation and maintenance outlays.

When all the material described above has been collected and organised, it should be analysed to obtain a picture of the probable future development of the community. Estimates can then be made of future revenues, and known future ordinary expenditures. Past revenue trends should not be projected unless the supplementary data available warrants such a procedure.

By subtracting expected ordinary expenditures from expected non-loan revenue, a figure of funds available for servicing increased debt is obtained. Then by estimating average interest rates on municipal debt and rates of amortisation for the planning period, the total amount of borrowing that is financially feasible during the period can be calculated. This sum represents the amount available for an enlarged programme of public investment.

If, for example, a community expects a revenue of \$1 million per year, and ordinary expenditures are expected to absorb half this amount, the community has \$500,000 available to service additional debt. If it can borrow at 4%, and if the continuing costs (including replacement) of the projects to be undertaken run at 6% of original cost, the community can afford to increase its debt by $\$500,000 \times 100/10 = \5 million. It can therefore undertake development projects costing \$5 million.

II. *Principles of Public Debt Policy*

Since this statement will probably seem a violation of principles of "sound finance" to some readers, and since a proper understanding of the nature and significance of public debt is a prerequisite to intelligent financial planning, we shall digress at this point to state the main principles of public debt policy.

The first step towards a proper understanding of debt policy is the elimination of any preconceived idea that a debt is in itself a bad thing. This preconception arises out of an entirely unwarranted carry-over of thinking with respect to personal finances into the field of government finance. A public debt is in itself neither bad nor good. The advisability of incurring debt can be evaluated only in the light of the whole economic and financial situation of the governmental unit.

In so far as analogies are helpful at all, the closest analogy to government finance would be corporate finance. Consider the case of a privately-owned public utility financed by the issue of bonds. The outstanding debt of the corporation as represented by these bonds is not regarded as an evil that ought to be eradicated. It is regarded simply as the other side of the balance sheet from the assets, in the form of plant and equipment, that this debt represents. An increasing bonded indebtedness may even be welcomed as an indication of expansion of plant and equipment, in order to take care of an increasing volume of business. Indeed, a corporation is "debt free" only when bankrupt. Similarly, a corporation would never consider as a "deficit" in any one year the cost of expanding plant and equipment financed by an increase in its bonded indebtedness. Deficits or surpluses would be estimated through a comparison of current revenue with *operating expenses* only.

In general, the same kind of thinking can be applied to government finance. An expanding governmental debt is merely an indication of expanding governmental assets. Expenditures for increases in net worth ought not to be compared with current revenue in estimating annual deficits or surpluses. The difference between the case of the corporation and the case of the governmental unit is that the relationship between income and investment is somewhat less direct in the case of the governmental unit. The increase in income that accompanies the increase in investment usually does not arise from the sale of the product of the investment, but from the increased willingness and ability of the community to pay taxes of various sorts. Those who think debt-reduction is *ipso facto* a good thing for a nation have only to compare the period 1929-1932, when total indebtedness (public and private) was liquidated on an unprecedented scale, with the period following 1933, when total indebtedness rose considerably.

Thus the question of whether or not a province or municipality should plan an increasing, decreasing or stable debt depends entirely upon its anticipation with respect to its total income, and the proportion of total income that the citizens will be willing and able to pay to the government in the form of taxes. In general, a governmental unit that can expect an increasing willingness and ability to pay taxes on the part of its citizens can and should plan a rising governmental debt over the long run. On the other hand, a governmental unit that can only expect a falling revenue must of necessity plan a decreasing volume of governmental debt. Finally, a stable community should, in general, plan to have a stable debt.

The community with a stable income and consequent need for a stable debt level may or may not find it desirable to stabilise its debt at the zero level. In most cases a community will reach stability after a period of expansion and with some outstanding debt. Whether or not such a community should wipe out its debt depends upon whether or not the rate of interest it pays on the debt is greater or less than its preference for having things now rather than later. It has the choice of using part of its current income for debt reduction, reducing future

interest charges and making possible greater future outlays for other purposes, or of spending more for other purposes in the near future and having correspondingly less to spend on them in the future. This choice is one which can only be made on the basis of relative needs now and later as compared with the rate of interest that the community is paying.

It follows from what has been said that the chief factor in estimating the desirability of expanding, contracting, or maintaining a public debt is an estimation of the future trend of potential revenue. To elaborate a bit on example, if our community can expect a gradually rising income, the total debt it can contract will also be gradually rising. However, if it finds that its income is likely to shrink over the next decade, it must plan a program of debt reduction, *unless* it is willing and able to devote an increasing proportion of its total income to public purposes.

Two other points ought to be made clear. One of these is the relationship between debt and needs, the other is the relationship between debt and income. An expanding community will have expanding needs. It will need new schools, new streets and sewers, increased fire and police protection, etc. If it is committed to a policy of not incurring debt, and is able to expand its total expenditures only at the rate at which current revenue increases, it will be unable to provide for these needs, since the expenditures required in any one year to install the needed facilities will far exceed the current revenue of that year. Borrowing is a means of spreading the cost of these needs over a number of years, while making the actual outlay in a single year.

With respect to the second relationship, the thing to remember is that government expenditure is itself a part of national income, and that its contribution to national income may well exceed the actual amount spent. The reason for this is that government expenditure tends to have secondary effects in the form of increased consumer spending and increased private investment, which in turn contribute to national income. An attempt on the part of government to balance budgets in a depression period tends to be self-defeating, since each reduction in government expenditure leads to a larger fall in national income and therefore in government revenues.

This statement is more true for government as a whole than it is for a single provincial or local governmental unit, since a larger share of increases in income tends to be spent outside the boundaries of the political unit in the case of subsidiary governments than in the case of central governments. However, it is essential that efforts of central governments to maintain employment after the war should not be defeated by deflationary debt-liquidation on the part of provincial and local governments.

While the general policy of a state or local government with respect to the trend in its indebtedness should depend upon trends in anticipated revenues, the policy with respect to the immediate future should depend upon other considerations as well. It is important that state and

local fiscal policy conform to federal fiscal policy in booms as well as depressions. Increases in governmental expenditures, and the accompanying increases in governmental debt, ought to come at a time when expenditures and debt incurrence by private individuals and business firms is inadequate to maintain a satisfactory level of income and employment.

Similarly, during periods in which the danger is one of inflation, community expenditures and debt incurrence ought to be reduced as much as possible. We are in such a period now. Accordingly, for the duration of the war, it might be advisable for community governments to support Federal fiscal policy by reducing expenditures, while at the same time maintaining revenues, and either accumulating surpluses or reducing outstanding indebtedness. If a provincial or local government chooses to reduce indebtedness over the war period, however, it should be perfectly clear that the reason for doing so is to conform with the fiscal policy suited to the current situation, and not for the sake of debt reduction in itself. On the contrary, debt reduction (in excess of what would be dictated in cases of a declining trend in revenue) should be regarded as a preliminary step to increasing the volume of expenditures and indebtedness in the post-war period.

Canada's record with regard to debt policy in the past has not conformed to the requirements of an anti-cyclical fiscal policy. On the contrary, as Table I shows, the combined deficits of all governments increased during the prosperous years 1925-29, when national income was rising, and fell during 1930-33, when income was dropping. Even in the construction field, where public investment was most heavily concentrated, activity rose during the boom and fell during the downswing. Debt incurred by provincial governments for public works and self-supporting assets (Table II) shows a fairly steady upward trend throughout the whole period, increasing in boom and depression alike. When debt incurred by the Dominion and the C.N.R. for similar purposes is added in, however, the total varies with the cycle instead of counteracting it.

The figures presented here do not provide a reliable measure of public investment policy of provincial and local governments; no satisfactory data will be available until the studies now being undertaken by the Advisory Committee on Economic Policy are completed. However, such information as we have suggests that in Canada as in the United States, public investment during the great depression was insufficient to maintain the rate of increase in total debt (or assets) of the 'twenties, and public construction was too small to prevent contraction even in the construction industry. Since the boom of the 'twenties was not accompanied by inflation and did not entirely eradicate unemployment, we cannot be sure that public investment was too high in the 'twenties; but it was certainly too small in the 'thirties. We must start planning post-war public investment now if we are to be assured of an adequate flow of useful projects in the 'forties.

TABLE I.—*Deficit Financing, Construction Activity and National Income, 1925-1937.*
(in millions)

Year	Increase in Debt All Governments ^a	Construction Con- tracts awarded ^b	Increase in National Income ^c
1925	— 21	298	373
1926	53	373	269
1927	28	419	231
1928	43	424	531
1929	189	576	3
1930	448	457	—820
1931	426	315	—873
1932	270	133	—767
1933	274	97	— 90
1934	263	126	425
1935	296	160	224
1936	17	163	456
1937	143	224	419

a) *Report of the Royal Commission on Dominion-Provincial Relations*, Vol. III, p. 21.

b) MacLean Building Reports

c) D.B.S. *Monthly Review of Business Statistics*, April 1943, p. 26.

TABLE II.—*Debt Incurred for Public Works and Self-Supporting Assets*

	1921	1926	1930	1933	1937
Dom. C.N.R. and Prov's..	\$ 971	\$ 2,143	\$ 2,072	\$ 1,925	\$ 2,390
Provinces only	522	817	1,144	1,256	1,501

Source: *Report of the Royal Commission on Dominion-Provincial Relations*, Vol. III, pp. 126-130.

III. Organising the Budget

The conclusions of the preceding section might be restated as follows: to be fiscally sound, a community must be able to meet its ordinary expenditures, including interest, amortisation and other current expenses, without borrowing. A fiscally sound city will also meet its outstanding obligations and float new ones without paying excessive rates of interest. On the other hand, sound-fiscal policy requires that outlays by governments should in general vary inversely with private outlays.

The Budget and the Program should be organised in accordance with these principles. The Budget is simply the list of expenditures for the next fiscal year. The Program consists of proposed outlays over a longer period, say, 5 to 10 years. The proposed ordinary expenditures for the next fiscal period constitute the *Operating Budget*. Extraordinary expenditures consist of lump-sum outlays which do not recur in every budget period, and which are made for capital improvements or public services yielding utility to the community over a period of time

longer than a single budget period. Proposed extraordinary expenditures for the next fiscal period constitute the *Capital Budget*. Any debt service ensuing from financing extraordinary expenditures must be carried over into the Operating Budget.

Revenue-yielding assets, such as municipally owned public utilities, might have separate budgets of their own, which could be called *Annexed Budgets*. Deficit or surplus items from the operating budget of these revenue-yielding assets should be carried over into the general Operating Budget. In general, however, gross receipts and gross expenditures in Annexed Budgets should balance. That is, it would not pay a community to maintain a public utility at a loss, except as a means of redistributing income; and to run it at a profit is equivalent to imposing a tax on consumers of the service.

The Capital Budget is balanced by definition; debt incurred is just equal to the value of assets acquired. The Operating Budget, while formally in balance, may include surplus or deficit items. Net losses on public utilities might give rise to a deficit in the Operating Budget. An excess of ordinary expenditures over current (non-loan) revenue would also lead to a deficit in the Operating Budget. While such deficits in any one year are not serious, and may even be desirable in depression years, continuous deficits in the Operating Budget tend to undermine fiscal soundness.

IV. *Programming*

Programming consists of scheduling proposed public investment projects over a period of 5 to 10 years, in order of their importance to the community. The program should include capital improvements, public services and ordinary expenditures — indeed, all items of public outlay. In addition to work definitely scheduled, a reserve of needed projects for which no funds are expected during the programming period should be built up. The program should be revised annually, and another year's work added to replace the one just completed.

Determination of priority ratings is a major part of programming. The community itself should probably rank projects according to direct contribution to community welfare, leaving it to the federal government to analyse their effects upon demand for labour, materials, and equipment, and upon income and employment generally. As a preliminary step all desirable projects should be listed. A standard form should be used, and both original and continuing cost carefully estimated. After listed projects have been studied, a selection can be made and scheduled over the programming period, to absorb the funds expected to be available during that period.

V. *Conclusion*

Careful financial planning guarantees periodic review of proposed community expenditures and revenues, so that few ill-conceived projects will be undertaken and few communities will outrun their re-

sources. It also provides a constant reserve of useful public work ready to meet any emergency in the field of employment. Whenever outside funds are made available, several years' work can be "telescoped", into one and some projects previously relegated to the "reserve" can be transferred to the "program".

Thus efficient financial planning at the community level has a contribution to make, not only to orderly provincial and municipal government, but to national prosperity as well.

If the experience of Public Work Reserve in the United States is any criterion, few provinces and municipalities know at the present time exactly what public investment projects they want most, or how they will finance them. Table III presents an analysis of projects submitted to the Public Work Reserve with regard to proposed methods of financing.

TABLE III.—*Proposed Method of Financing Capital Improvement Projects*

Proposed Method of Financing	Number of Projects		Total Cost of Projects	
	Number	% Distribution	Amount	% Distribution
1. Bond issue	130	18.1	\$17,483,306	13.9
2. Current revenue	305	42.3	23,400,684	18.6
3. Bond issue and outside aid ...	25	3.5	15,607,601	12.4
4. Current revenue and outside aid	52	7.2	3,757,694	3.0
5. Two or more of classes (1) to (4) above	29	4.0	1,892,142	1.5
6. Indeterminate	179	24.9	63,679,768	50.6
	720	100.0	\$125,821,195	100.0

The most striking feature of the tabulation is the fact that the projects are heavily weighted in the indeterminate class. Fully 25 per cent. of the number, and 50 per cent. of the total estimated cost of the projects analysed in the sample were not accompanied by any determinate proposal for financing. If Items 3 plus 4 plus 6, in combination, be regarded as an indication of indeterminate financing, it may be observed that the number of projects falling into this category represents 36 per cent., and their estimated cost represents 66 per cent. of the projects analysed.

To avoid both "boondoggling" and postwar depression, it is high time Canadian provinces and municipalities began financial planning. Planning costs money; federal assistance may be necessary even in the planning stage. Let us hope that the federal government will set the ball rolling soon, by stating its intentions to carry out an extensive program of community development, and by making funds available for community planning.

Suggestions for Further Reading:

Dominion Advisory Committee on Reconstruction: *Report of the Subcommittee on Housing and Community Planning*, Ottawa 1944.

Hansen, Alvin H.: *Fiscal Policy and Business Cycles*, New York 1941.

and Perloff, Harvey S.: *State and Local Finance in the National Economy*, New York 1944.

- Harris, Seymour E.: "Postwar Public Debt", Chapter X. of *Postwar Economic Problems*, New York 1943.
- Higgins, Benjamin: "Problems of Planning Public Work", Chapter XI, *ibid* Chapter 4 of *Postwar Goals and Economic Reconstruction*, "Public Works in our Postwar Economy", Institute on Postwar Reconstruction New York 1944. "Housing and Full Employment", *Public Affairs*, Winter 1944.
- National Association of Supervisors of State Banks (Committee on Municipal Obligations) *Municipals*, Federal Deposit Insurance Corporation, Washington 1941.
- National Resources Planning Board, (Melvin Scheidt) *Long Range Programming of Municipal Public Works*, Washington 1941.
- Thompson, Spencer: "The Investment Budget" Chapter III of *Public Policy* (Yearbook of the Graduate School of Public Administration, Harvard) Volume II, Cambridge 1941.
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Measurements of Housing Needs Supply and Post-War Requirements



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An attempt to present summarily the problems of urban and rural housing in Canada and to indicate the possible magnitude of postwar requirements necessitates that enough factual information be assembled to enable conclusions to be drawn as to the proportions and the significance of a postwar housing programme. The present survey is divided into three parts. The first part essays to provide the requisite factual information. The second part deals with postwar housing requirements. It discusses methods of measuring housing needs, offers suggestions as to the possible dimensions of a postwar housing programme, and compares a Canadian programme with those planned in Great Britain, the United States and New Zealand. The task of the third and last part is to assess the role of a large-scale housing programme within the broader framework of a positive economic policy, and especially to indicate the significance of a well-planned housing programme as a factor in stabilizing employment and maintaining a high level of national income.

Factual Information

1. Regional Distribution of Population.

At the time of the Census of 1941 there were in Canada over eleven and a half million people. Of this number, about 6.3 millions, or 55 per cent. were living in urban areas, the latter being defined to include all incorporated communities. The remaining 5.2 millions lived in rural areas consisting of farm areas and non-incorporated communities.

The census definitions of urban and rural areas, as commonly used, are too broad to permit a proper appraisal of housing requirements. A single instance will suffice to indicate wherein they are deficient. In the Census, a community is classified as urban only after it has received a charter of incorporation. No account is taken of its size. The result is that small incorporated villages, of which there are many in the

Prairie Provinces, containing not more than a few hundred inhabitants are classified as urban while large non-incorporated communities such as York Township (population over 81,000), which forms part of Greater Toronto, are classified as rural. Obviously, York Township is more urban in character than those small villages. The limitations of the census definitions, from the standpoint of the administration of national, provincial and municipal housing and town and regional planning legislation, are great enough to warrant deviation from the traditional approach. For present purposes, it seems best to make a division of the population according to the type of area inhabited. Four groups can be distinguished.

The first group comprises large urban centres consisting of twelve so-called metropolitan cities and their satellite communities, and a like number of large cities lacking substantial suburban areas (see Table I). The 24 cities taken together house the great majority of the urban population (about 4.3 million people, or approximately two-thirds of the total). It is in these cities that the housing need is greatest. The second group comprises all incorporated small cities, towns and villages, about 1,600 in all, whose populations total about 2.4 million people.¹ The third group is composed of rural and frontier areas, and includes non-incorporated communities, lumber camps, etc. These areas are inhabited by about 1.6 million people.

The final group is made up of farm areas, whose population totals about 3.3 million people. The population of farm areas should be distinguished from the population living on farms. An examination of census records has shown that over 65,000 people in 1931, and more than 40,000 in 1941, classified as farm population, lived in urban centres, while probably a greater number lived in non-incorporated communities. Since it is desirable to make the administration of farm housing legislation as simple as possible, it should be made applicable to farm areas as determined in the last census and to farmers living in non-farm areas who can prove that they are bona fide farmers. An advantage of using farm areas as a basis for farm housing legislation is the fact that small groups of non-farmers, for example miners, fishermen, etc., living in those areas, would also benefit under the special provisions of this legislation. The justification for this arises from the fact that their housing needs are more closely related to those of farmers than to those of the urban population.

1. The proposals on housing legislation submitted in the *Final Report of the Subcommittee on Housing and Community Planning* (Advisory Committee on Reconstruction, Kings Printer, Ottawa, March 24, 1944) do not distinguish between the smaller urban centres and rural non-farm communities. The demarcation here made between them is warranted by the considerations that information is more complete for the former and that the relative importance of the two groups is of some interest.

TABLE I—*Population and Dwellings for Metropolitan Areas, Major Cities Without Satellite Communities, Urban and Rural Aggregates, Canada, 1941*

Metropolitan areas	Population number	Dwellings number	Major cities without satellite communities	Population number	Dwellings number
Montreal	1,139,921	252,220	Edmonton	93,817	23,449
Toronto	900,491	205,131	Calgary	88,904	21,841
Vancouver	351,491	92,539	Regina	58,245	13,064
Winnipeg	290,540	65,894	Saskatoon	43,027	10,538
Ottawa	215,022	44,784	Three Rivers	42,007	7,458
Quebec	200,814	34,188	Sherbrooke	35,965	7,667
Hamilton	176,110	42,157	Kitchener	35,657	8,515
Windsor	121,112	29,138	Sudbury	32,203	7,393
Halifax	91,829	17,967	Brantford	31,948	8,222
London	86,740	22,781	Fort William	30,585	6,367
Victoria	75,218	21,078	St. Catharines	30,275	7,514
Saint John	65,784	14,934	Kingston	30,126	6,640
Total	3,715,072	842,811	Total	552,759	128,668
Large urban centres comprising metropolitan areas and major cities without satellite communities				4,267,831	972,000
Smaller cities, towns and incorporated communities with population of less than 30,000				2,377,914	560,000
Rural non-farm areas				1,574,533	376,000
Farm areas				3,269,435	728,000
Canada				11,489,713	2,636,000

Source: Bulletins HF-1 and A-13, 1941 Census, and additional information on dwellings by courtesy of Census Branch, Dominion Bureau of Statistics. Figures for dwellings are preliminary and include vacant dwellings. Totals exclude Yukon and the Northwest Territories. Because figures for dwellings are preliminary, they have been rounded to nearest thousand for aggregate areas.

2. Urban and Rural Population Growth.

The housing needs of today have to be seen in the light of historic trends in population growth. It is significant in this connection that, whereas in 1871 the rural population comprised about 80 per cent of the total, this proportion had by 1941 dropped to 45 per cent. Since the turn of the century, the urban population of Canada has increased more than 300 per cent. This rapid growth of the urban population is one of the primary causes of the prevalence of substandard and slum dwellings in the major Canadian cities.

One of the most interesting characteristics of population growth during the last decade is the fact that, although the rural population increased from 4.8 millions in 1931 to 5.2 millions in 1941, the farm population, which totalled 3.3 millions in 1931, fell by about 150,000 during the same period. So far as large urban centres are concerned, the city

which experienced the most substantial growth between 1931 and 1941 was Sudbury, whose population increased by about 74 per cent. Saskatoon was the only large city losing population in the same period; the decline, however, was slight. A comparison of the population growth of Montreal proper and Toronto proper during the last two decades shows that during both periods it was Montreal which underwent the greater expansion: 32 per cent as against 21 per cent in the twenties, and 10 per cent as against 6 per cent in the thirties.

3. *Housing Standards.*

Information on the standard of housing accommodation in this country comes chiefly from the findings of the Housing Census of 1941, which was the first of its kind ever taken in Canada.

With respect to the definitions used by the Dominion Bureau of Statistics, it is necessary to distinguish between buildings and dwellings. The former term connotes structures used for residential premises, while the latter refers to housing units, for example a one-family home, an apartment or a flat. The second is the more important term, and the one to which reference will be made below. It should be borne in mind, however, that there are many more dwellings than buildings. Any estimate expressed in terms of dwellings has to be reduced by about one-third if it is to relate to buildings.

Of the 1,437,000 dwellings in urban areas, (this figure excludes dwellings in non-incorporated communities forming parts of metropolitan areas; see Table II) only about 22,000 or 1.5 per cent were vacant when the Census was taken in June, 1941. Some of these houses were uninhabitable, while others may have been unoccupied only for the short time which elapses between the vacation of the premises by one occupier and the moving in of another. The above figure can be taken as an indication that practically all available housing accommodation was taken up at the Census date. This conclusion is reinforced by the many reports received about acute housing shortages in a number of large and many of the small urban centres across Canada.

The principal characteristics of the types of houses inhabited can be briefly stated. About 43 per cent of urban dwellings were of wooden exterior, with another 7.5 per cent being of the stucco exteriors often applied to wooden structures. No less than 44.5 per cent of all dwellings were constructed of brick.

If all cities with population of 30,000 and over be taken together, it is found that 55 per cent of all dwellings were single family houses, the remainder being either apartments, flats, duplexes or semi-detached dwellings. There are indications that the proportion of apartments has risen in the course of the last decade.

So far as size of dwellings is concerned, there is great regional variation with the most typical size of dwellings ranging between four and six rooms. There are, for example, far more large dwellings in Toronto than in Montreal, the respective proportions of housing units with six rooms or more being two-thirds and a little more than one-third.

Intimately related to the question of size of dwelling is that of overcrowding. If one room per person, a kitchen being counted as a room, be taken as a reasonable standard of housing accommodation, then it is found that in cities with population of 30,000 and over, not less than 150,000 households, comprising about one million people, lived in overcrowded conditions. Included in these crowded households were about 40,000 lodging families; while another 70,000 lodging families lived in households which averaged more than one room per person. It thus appears that it would require about 110,000 new dwelling units merely to give a separate home to each family living in the major Canadian cities. An additional 40,000 would be required for doubled-up families living in smaller cities and towns. This estimate does not take into account the new dwellings which would be required to accommodate large families whose present housing accommodation is inadequate.

There is another important attribute of the existing housing supply. Many substandard and slum dwellings have been accumulated in the major cities of the Dominion. There is considerable material available in local reports which describe, often very vividly, the amazingly low standard of housing in which a substantial proportion of urban dwellers live. The following figures may serve as an illustration. About 284,000 dwellings, or over 20 per cent of those situated in urban areas, were in 1941 in need of external repairs. A similar number lacked flush toilets or their exclusive use, while more than a third of all urban dwellings, about 428,000 all told, did not have a bath tub or shower.

It has been estimated that in the major cities alone there were at the Census date approximately 125,000 substandard and slum dwellings. The prevalence of substandard housing varied markedly as between cities. Verdun and Outremont, in which only 7 and 8 per cent, respectively, were in need of external repairs in 1941, were least affected, while at the other extreme was Hull, where about 32 per cent of all houses were deficient in this respect. Montreal proper and Toronto proper both reported about 13 per cent of all dwellings as being in need of external repairs. The number of substandard dwellings situated in the smaller cities and towns has been estimated at some 50,000 units. A programme aiming at the complete elimination of obsolete housing will therefore have to provide for the replacement of at least 175,000 units for urban areas alone.

This analysis would not be complete without an examination of the state of the Canadian farm housing supply. Much has been said in general terms about the poor conditions under which many Canadian farmers live, but it is frequently not realized how obsolete a substantial proportion of farm houses really are. Of 728,000 farm dwellings, almost 40 per cent, or about 277,000, were in 1941 in need of external repairs. This figure probably under-states grossly the number of farm dwellings in need of one or more of the many possible kinds of repairs, because it is based solely on external repair criteria which census enumerators could readily apply. No account is taken of the many dwellings in need of internal repairs or of the improvement of plumbing facilities. It is

no overstatement to say that even if there are no other repairs needed, practically every farm dwelling could afford a new coat of paint. An observation made by the Rt. Hon. Lord Justice Scott with reference to housing conditions in rural Britain applies as well to Canada. Lord Justice Scott pointed out that even where conditions of farm homes cannot be described as equivalent to the slums of the towns, so many rural houses lack the material improvements now becoming general in town dwellings that the inequality is a principal factor in inducing the migration of young people to the towns.¹

The situation is especially acute in the Prairie Provinces. A recent survey of farm homes in representative areas of Saskatchewan showed that 37.5 per cent of all farm homes were in poor condition, 56.5 per cent in fair and only 6 per cent in good condition.² Similar results were obtained from a survey in Alberta, where 41 per cent of all farm dwellings were in poor, 46 per cent in fair and only 13 per cent in good condition.³ A competent observer remarked that if a thousand typical homes from the farms and small towns of western Canada were assembled and arranged on an urban street layout, they would in all probability constitute a community which in most physical respects would be just another slum area.⁴

A programme designed to raise substantially the housing standard of the population living in the farm areas must, it is estimated, provide for a replacement programme of at least 100,000 units, about 14 per cent of the total supply, and likewise provide for a substantial repair and improvement programme under conditions which any farmer desiring to improve the standard of his home can fulfil.

4. *Trends in House-building.*

Recently prepared estimates of the age of houses in Canada have shown that old homes constitute a significant proportion of this country's housing supply. Seventeen of the major cities situated in Eastern Canada are over a hundred years old. Many of these cities possess a great number of old houses. The outstanding example is Saint John, where nearly 60 per cent of all dwellings are over 50 years of age. In Montreal and Toronto dwellings of similar age comprise 17 and 19 per cent respectively of the total supply. Although some old homes have been kept in good repair, it can be said that the accumulation of a great number of old houses is another important factor which has led to the growth of slum areas and to a progressive deterioration of the housing supply.

1. British Ministry of Works and Planning: *Report of the Committee on Land Utilization in Rural Areas*, (Scott Report), London, 1942, Cmd. 6378, p. 48.
2. R. A. Stutt: *Some Observations on Farm Houses in Representative Areas of Saskatchewan*. The Economic Annalist, Ottawa, November, 1943, pp. 69-73.
3. Sample farm survey conducted by the Economic Division, Dominion Department of Agriculture, Ottawa, 1939-1941.
4. E. W. Thrift: *Prairie Slums Unlimited*, Journal of the Royal Architectural Institute of Canada, Toronto, September, 1943, p. 154.

In all urban centres as a group, 27 per cent of all dwellings are in the age group 11–20 years and slightly less than 18 per cent in the age group 1–10 years (see Table II). Interpreted in terms of building activity, this means that for every three new dwellings built during the twenties, only two were built during the thirties. The depression at the beginning of the last decade clearly exerted a great retarding influence upon housing construction in this country. Further reference is made to this fact at the close of the chapter.

TABLE II.—*Estimated Age of Dwellings in Cities with Population of 30,000 and over, Smaller Cities, Towns and Incorporated Communities, and All Urban Areas, 1941.*

Age of dwellings	Cities with population of 30,000 and over ¹		Smaller cities, towns and incorporated communities ²		All urban areas ³	
	number	per cent	number	per cent	number	per cent
1–10	127,500	15.7	126,600	20.2	254,100	17.7
11–20	210,700	26.0	175,800	28.1	386,500	26.9
21–30	172,400	21.3	53,800	8.6	226,200	15.7
31–40	145,300	18.0	125,900	20.1	271,200	18.9
41–50	42,300	5.2	52,500	8.3	94,800	6.6
Over 50	112,100	13.8	91,900	14.1	204,000	14.2
Total	810,300	100.0	626,500	100.0	1,436,800	100.0

SOURCES: Special computation based on two components: (a) the net increase of dwellings, data for which were obtained from the population censuses of the Dominion Bureau of Statistics, 1871–1941; and (b) the number of destroyed or demolished dwellings, information for which was derived from: (i) sample studies made for certain Canadian cities; (ii) the experience that the number of buildings destroyed or demolished rises in a period of great building activity and declines in a period of little building activity; and (iii) information available on the replacement rate in Great Britain and the United States. The replacement rate is the ratio of dwellings torn down or otherwise destroyed during a decade to the number of dwellings in existence at the beginning of the decade. The Canadian replacement rate varies for different cities and for different periods, and is not necessarily comparable with the British and American replacement rates.

In spite of the fact that a great number of housing units were built in the twenties, there was still a housing shortage at the conclusion of this period, as figures from the 1931 Census show. In June of that year, not less than 163,000 families, representing about 800,000 people or 15 per cent of the total urban population, had to share their dwellings with others, while many more were living in overcrowded conditions. The explanation for this is that not even the housing boom of the twenties met the needs of this country. This is perhaps best illustrated by a comparison with conditions in the United States. In the peak year of re-

1. Cities proper excluding satellite communities. The latter, with the exception of Outremont, Verdun and Hull are, if incorporated, included under smaller cities, towns and incorporated communities. This explains partially the substantial increase in the number of dwellings in these urban units during the last two decades.
2. Excluding Northwest Territories.
3. Urban areas as defined in the 1941 Census.

sidential construction in the United States, 1925, about 8 housing units per thousand population were constructed against 5 per thousand in the Canadian peak year of 1928.

Two housing acts, namely the Dominion Housing Act, 1935 and the National Housing Act, 1938, have helped to ease the housing situation by granting loans under favourable conditions to prospective homeowners. During 9 years operation of these acts, about 26,000 housing units were built. But this programme has taken care of only a small section of the substantial housing needs of this country.

To relieve the pressure on the housing market in areas most affected by population shifts during the present war, about 17,000 housing units, providing accommodation for about 90,000 persons, were built by the Wartime Housing Limited from 1941 to 1943. Although helpful in itself in easing the housing situation in some cities, this building activity was not designed to be of permanent character. Furthermore, the addition to the urban housing supply coming from this source was offset by substantially reduced building activity from private sources due to the need of conserving vital war materials and precious labour supply.

Another war housing measure was the Housing Conversion Plan under the National Housing Administration. Operations on a small scale commenced in the Ottawa area in April, 1943. By October of that year the plan of converting old houses into multiple dwelling units had been extended to include sixteen of the larger cities. About 2.5 million dollars were originally authorized, providing for the construction of at least 1,700 units, and additional sums have been appropriated in recent months.

The postwar housing situation will be aggravated by the fact that many workers and their families have during the war years migrated to large urban centres where jobs were plentiful and wages good. Even if a great number of war workers leave the major cities, others will want to stay. It is estimated that for the major cities alone, 35,000 dwellings will be required to house those war-workers and their families who will want to remain.

5. Home Ownership and Tenancy.

Of the approximately 1.4 million dwellings situated in urban areas in 1941, about 41 per cent were owned and the remainder rented. The relative importance of home ownership in urban areas has declined consistently since 1921. The decline amounted to 3 per cent between 1921 and 1931 and 4.4 per cent during the last decade. This is a considerable drop; a decline of one per cent in the number of owned dwellings involves more than 14,000 units.

Among the major cities, Vancouver, Fort William, St. Catherines and Kitchener show the largest proportions of owned dwellings, over 50 per cent. The other extreme is represented by Montreal proper and Verdun, where only 11.5 per cent and 9.7 per cent, respectively, of all dwellings are occupied by their owners. The proportion of owned homes in Toronto proper is, at 43.8 per cent, relatively high.

The decline in the proportion of owned homes in the major urban centres during the thirties was undoubtedly due mainly to uncertain economic conditions, although the comparatively high acquisition and maintenance costs of new houses had their effect. It was not only the need for labour mobility which lessened interest in home ownership, but also the uncertainty of the main breadwinner of the family remaining employed and being able to continue to meet the obligations involved in owning a home. By taking an apartment or renting a house, a great number of families gave up, at least temporarily, the hope of owning a home. In a fundamental sense, these conditions can be remedied only if a programme designed to ensure full employment in the post-war period gives confidence to potential home owners that they will be able to carry the burden involved in home ownership because their continuous employment is assured.

Figures on the average value of dwellings afford another evidence of the poor state of repair in which many dwellings have been kept. These values are those reported by the owners themselves and, because many home-owners are not fully aware of changes in real estate valuation, have to be seasoned with caution. In Saint John, the average owned home was valued at about \$2,300, the lowest of any major city. This is in conformity with information on the age of homes, which points to the fact that Saint John is the city with the largest number of old houses. The most expensive homes are situated in Outremont, where the average value is slightly over \$10,000. Real estate in Toronto has a higher worth than in Montreal, the average home in the former being valued at about \$4,400 as against \$3,600 in the latter.

To the question, is it cheaper today to own or to rent a home, the answer is that if *average* rentals and *average* maintenance costs of owned homes be taken as a basis, home ownership, under present conditions of high cost of acquisition and high carrying charges, ordinarily is more expensive than tenancy.

The reason for the discrepancy between average rentals and average maintenance costs of home ownership is to be found in the fact that a substantial number of obsolete and substandard homes are inhabited by tenant families belonging to the lowest paid income group. Most of these houses are old and on them the original investment was amortized long ago. The owners of these dilapidated buildings are content to let them for rentals sufficient to pay for real estate taxes and upkeep of the premises. The present shortage and the consequent rise of rentals has in fact made the leasing of slum properties profitable. The comparatively low rentals for slum properties lower the *average* of rentals paid by the tenant population as a whole. If a comparative study were to be made of rents paid for an apartment in a new building providing modern conveniences, and of maintenance costs and carrying charges of an owned home of similar standard and with an amortization period of

twenty to thirty years, it is likely that the divergences between the two types of cost would be slight.¹

Indeed, a careful examination of the factors which determine the scale of rentals and the cost involved in home ownership permits the conclusion that it should be possible to reduce costs of home ownership at least to the level of rental costs. There is no doubt that once this is accomplished many who want to own homes but cannot at present afford to do so will be able to acquire houses of their own without any additional burden. This is not to say that, even if costs of home ownership are substantially reduced, everyone should live in an owned home. On the contrary, the need for labour mobility requires a large number of rented premises. The main point is that families within certain income groups who want to own their homes and who are not able to do so because of high costs of acquisition and carrying charges should be able to find a housing market to cater to their needs. This constitutes a challenge to the construction industry, to financial institutions and to the government.

As for the maintenance cost of mortgaged homes, it is calculated that average maintenance costs amounted to \$450 per year in the major cities. There was a substantial regional variation ranging from \$292 in Saint John to \$774 in Outremont. Mainly because of higher real estate taxes and larger outstanding mortgages, average maintenance costs were higher in Montreal than in Toronto (\$486 as compared with \$442). The total maintenance costs were composed of an average property tax of \$123, average annual payments of the mortgage (principal and interest) of \$254 and average cost of repairs of \$73. These are average figures; in particular instances, annual repair costs may vary from only a few to several hundred dollars.

On the above basis, the monthly average maintenance cost of a mortgaged home amounted to \$38. On the other hand, monthly average rent for families of all income groups together amounted to only \$27. Not until tenant families with incomes of over \$1,500 annually were reached did monthly average rents approximate maintenance costs of home-ownership.

6. *Incomes and Rentals.*

These considerations lead to the important question, what are the incomes of urban families and what can they afford to pay for rent? A special survey was recently undertaken of the incomes and rents in 1941 of wage-earner tenant families in twelve metropolitan areas.²

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1. The relationship between rentals and ownership cost is by no means invariable. In prosperous times, ownership costs may be lower than rents for equal accommodation; in a period of depression, with landlords willing to take a loss in the expectation that they will be compensated for it in the ensuing upswing phase of the business cycle, the opposite will likely hold true.
 2. *Final Report of the Sub-committee on Housing and Community Planning*, op. cit., p. 107ff and p. 312-313.

There are a number of qualifications attached to the statistics gathered from the survey, in particular as to their applicability to the whole tenant population. Thus, the earnings of wage-earner families were on the whole somewhat lower than those of non-wage-earner families, such as those whose heads were independent business men, professional people, etc. Since, however, the majority, about 70 per cent, of tenant families in the chief metropolitan areas have wage-earner heads, the figures obtained serve as a good illustration of the problem faced by this section of the urban population.

In the survey, wage-earner tenant families were divided into three groups. The low income group comprised the first third of tenant families; the average annual earnings of this group in the twelve metropolitan cities were \$703, and varied from less than \$600 in Saint John and Vancouver to \$943 in Windsor. Average earnings in Toronto were considerably higher than those in Montreal, being \$826 as against \$652. Ninety-three per cent of this group earned less than \$1,000. The second third of wage-earner tenant families was made up of the medium income group, whose average earnings varied between \$1,169 in Saint John and \$1,667 in Windsor, Montreal with \$1,323 and Toronto with \$1,549 occupying intermediate positions; ninety per cent earned less than \$1,800. The high income group comprised the last third of wage-earners tenants, whose income ranged from \$1,800 upwards.

Rent payments were related to income, with 20 per cent of the latter being taken as the desirable proportion of expenditure for shelter. The justification for this is found in the findings of various research studies in Canada and other countries. On this basis, it was found that about 89 per cent of all families in the low income group paid more for rent than they should have spent if outlays on other necessities of life, such as food and clothing, were not to be curtailed. Whereas all that these families could afford to pay for rent was from \$9.50 to \$14.50 per month, with an average of about \$12.00, they in fact paid between \$14.00 and \$25.00, the average rent being \$19.00. Instead of twenty per cent, nearly one-third of the family earnings went into payments for shelter. The result of the excessive rent burden resting upon the shoulders of the lowest-paid third of wage-earner families is that many families are forced to occupy slum and substandard dwellings, to the detriment of health and general wellbeing.

The problem raised by this state of affairs is similar to that faced by a number of European countries and the United States. There the answer was found to be publicly subsidized low-rent houses. An attempt in this direction was made in Canada when, under Part II of the National Housing Act of 1938, provisions were made for federal assistance to finance the construction of low-rental housing projects to be leased to families of low income at less than economic rentals for such accommodation. Unfortunately, the outbreak of the war and other difficulties made it impossible to carry those provisions into

effect. It is reasonable to expect federal, provincial and municipal action in this field after the war.¹

It is important to realize in this connection that subsidized low-rent housing developments by municipal authorities or limited dividend corporations undertaken with federal assistance will not involve competition with the private housing market. If all that wage-earner families in the low-income group can afford to pay for rent is \$9.50 to \$14.50 per month, no private undertaking, with the exception perhaps of a charitable institution, can attempt to supply the market unless the immediate postwar period brings a revolutionary change in house-building techniques. Although some progress in building methods may effect a lowering of construction costs per unit after the war, it is not likely that such a reduction will be sufficient to enable private landlords to provide decent homes for the low-income group at rentals which this class can afford to pay. To achieve the elimination of substandard and slum dwellings inhabited by low income families and the reduction of the rent burden of this group, public action will almost certainly be necessary.²

An examination of the rental-income relationship of the medium-income group showed that the deviation of the actual rent from proportionate rent was much less marked, with the average proportionate monthly rent amounting to \$23 as against \$24 for actual rent paid. Nevertheless, there was in some cities a substantial proportion of medium-income families paying disproportionate rent, notably in Halifax where 58 per cent of such families paid out more than 20 per cent of their incomes for shelter. On the whole, however, this group can afford to continue renting housing accommodation from private landlords. The need for new housing legislation appears mainly to be confined to easing the existing provisions of financing housing acquisition

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1. The first positive step in this direction is the passing of the National Housing Act 1944 (assented to 15th August, 1944, 8 George VI, Chap. 46) by the Dominion Parliament. In the field of rental housing this Act provides for:
(a) The financing of ordinary commercial rental housing projects by government participation in joint loans; (b) the financing of special low-rental housing projects by government loans to limited-dividend housing corporations; (c) the financing and management of low-cost or moderate-cost rental housing projects by life insurance companies and certain other institutions, with government guarantees of minimum returns on investment; (d) government assistance to municipalities for slum clearance in order to make possible the development of low-cost or moderate-cost housing projects. Supplementary housing legislation for ownership and rental purposes is being considered by several of the provinces.
 2. Recent recommendations in this field include among other things the provision that capital costs for low-rental undertakings should be provided directly by the Dominion Government at the lowest possible interest rates. Local housing authorities and limited dividend housing corporations are suggested as the appropriate agencies for the operation of low-rental housing projects. These authorities are not to be exempted from local property taxation. Subsidies by the Dominion Government in the form of annual grants are also recommended for the purpose of permitting rentals to be set lower than the economic or commercial level. (*Final Report of the Subcommittee on Housing and Community Planning*, op. cit., p. 193ff.)

in order to cater to the needs of those families which have hitherto been unable to acquire houses of their own.¹ Expenditures for shelter by families in the high income group were found not to be disproportionate to their earnings. For this reason, special legislative measures on behalf of this group would appear to be unnecessary.

POSTWAR HOUSING REQUIREMENTS

1. *Methods of Measuring Housing Needs.*

One explanation for the differences in figures quoted by those who have prepared estimates on the Canadian housing backlog is to be found in the fact that various kinds of measurements are being used, of which two major types can be distinguished.²

The first attempts to determine the *backlog* of residential construction by taking the average volume of house-building over a period of great building activity as a desirable standard and by measuring the deficit accruing from lesser building activity in lean years. While this measurement is a rather popular one, it does not meet the basic problem of relating the volume of house-building to the requirements of families and non-family household groups. The volume of residential construction in Canada in the late 'twenties was large enough to glut the housing market through the construction of more dwellings than those who could afford to buy homes or rent expensive apartments could absorb. The existence of an apparent oversupply of houses at the end of that decade, however, hides the fact that a substantial proportion of families of medium (mainly the lower range of this group) and low incomes were not properly housed, some living in overcrowded conditions, and others in dwellings in slum districts or in little shacks at the outskirts of the large cities, the only homes they could afford to rent or to own.

The second measurement estimates the *accumulated building need*. It is based on the assumption that every family and non-family household group which desires to live in its own quarters should be able to obtain a separate dwelling unit (one-family house, apartment, etc.) of a desirable standard, and it therefore involves the exclusion of sub-standard and slum dwellings from the existing housing supply. The advantage of this measurement is that it takes account of the *real*

1. Recommendations on broadening provisions for home ownership acquisition include loans up to 90 per cent of the loanable value of homes not exceeding \$6,000 per unit, extension of the period of amortization to thirty years and a reduction of the rate of interest to at least 4 per cent. Connected with home ownership acquisition are a number of recommendations on urban redevelopment problems including the set-up of Dominion, provincial and municipal town planning agencies. (*Final Report of the Subcommittee on Housing and Community Planning*, op. cit., p. 159ff. and p. 183ff.) The National Housing Act 1944 has gone only part of the way by reducing the rate of interest to 4½ per cent. On the other hand the Act does not set any upper limit for housing loans.

2. *Final Report of the Subcommittee on Housing and Community Planning*. op. cit., p. 137.

housing needs of the population and pays attention to such factors as family growth and family dissolution. This method likewise provides for the replacement of unhealthy dwellings in slum or other areas, irrespective of whether this was done in the past or not. Because it is not related to past accomplishments, it is likely to show a substantial building deficit. This is particularly true in a country such as Canada, which has never had a planned slum clearance programme, has never adopted measures aimed at the orderly withdrawal of old and dilapidated houses, and has never instituted a large-scale low-rent housing and subsidized home-ownership programme to take care of a section of the population whose housing requirements have been neglected even in the most prosperous periods.

The estimates of postwar requirements presented here are based on the second method, which relates housing needs to the number of families in this country and to the present standard of housing. It must be realized that it will not be possible to change the standard of Canadian housing overnight. Even if a properly planned slum clearance programme and a comprehensive town planning scheme were to be introduced in all cities and towns shortly after the war, it might take as many as thirty years to eliminate all obsolete and substandard dwellings and to provide a decent home for every Canadian family.

2. Accumulated Building Need.

In 1946, assuming this to be the first postwar year, Canadian housing needs in urban areas will amount to about 500,000 units:

(a) New homes to the number of 150,000 will be required to provide separate dwellings for doubled-up families. To this has to be added an allowance for non-family household groups which at present share their dwellings with other groups and which would occupy apartments of their own if these were available in sufficient numbers. The need of this group has been put at 44,000 units.

(b) As previously indicated, a minimum replacement programme of at least 175,000 units will be required to eliminate all substandard and slum dwellings.

(c) Account has to be taken of abnormal city growth due to the expansion of war industries. It is estimated that about 35,000 new dwellings will be required for those war workers and their families who will want to remain in the major cities after the war. Some of the smaller cities and towns are also affected and their requirements on this count have been put at 5,000 units.

(d) Consideration must be given to such factors as the building deficit accumulated during the war years due to restrictions on materials and labour. Furthermore, in order to assure flexibility between population and housing supply, allowance must be made for some dwellings remaining vacant for short periods. In a dynamic economy shifts of population frequently take place at a more rapid rate than changes in the housing supply. The proportion of vacant dwellings to the total number of dwellings is usually described as the vacancy rate.

A desirable vacancy rate for Canada would vary for different regions and would probably be of the order of 2 to 6 per cent; in the computation presented here, however, only the lower figure is used. Finally, allowance must be made for housing requirements in the non-incorporated parts of metropolitan areas which, though classified as rural in the Census, are considered as urban in measuring housing needs. Housing requirements on all these counts have been estimated to number 91,000 units.

All these factors taken into account, it becomes apparent that by 1946 the shortage of housing in all cities and towns, if our requirements are taken to be "a decent home for every Canadian family," will have reached an all-time high of half a million units. Obviously, the housing need is reduced considerably if the great number of substandard and slum dwellings accumulated in the past are left intact. Assuming, however, that a far-sighted long-term housing policy will aim at the removal of obsolete houses and at the elimination of overcrowding, the dimensions of the future housing programme will be conditioned not only by the necessity of liquidating the needs accumulated in the past, but also by the requirements of the future as determined by population growth and other factors. For this reason, it will not be possible, and perhaps not desirable, to liquidate the housing shortage completely within the first postwar decade. On a thirty-year basis, this country would have to build about 160,000 units each decade in addition to its normal housing requirements.

3. *Annual Building Need.*

Normal housing requirements are expressed in terms of an annual building need. This need is a variable depending, on the one hand, on the rate of population growth and on family formation and dissolution, and, on the other hand, on the rate of obsolescence, which is set by the type of structure and by environmental factors such as those determined by the pattern of city growth.

It has been estimated that for the decade following 1946 the minimum annual building need for all urban areas will be of the order of 37,500 units per year, a figure well below that of actual requirements, which are put at 57,000 dwellings. A realistic appraisal of the dimensions of a postwar housing programme has to take into account the many difficulties which a substantial housing programme in the immediate postwar period will face and for this reason to assume that it will not be possible to reach an entirely satisfactory standard of housing during the first postwar decade.

4. *Dimensions of Total Housing Programme for First Postwar Decade.*

Postwar housing requirements on a minimum basis for all cities and towns in this country form only part of a postwar housing programme. Housing needs in rural non-farm and in farm areas have to be added to give a complete picture. An immediate programme

catering to the most pressing needs of the first postwar decade will have to take care of:

(a) One-third of the accumulated building need, put at 160,000 units.

(b) The recurrent need of providing accommodation for new families and of securing an orderly withdrawal of houses becoming obsolete during the course of the year, estimated on a minimum basis to number 37,500 units per year or 375,000 units for the decade.

(c) The housing requirements in rural non-farm areas on all counts have been put at 71,000 units for the first decade.¹

(d) Housing requirements in farm areas for the first ten years after the war have been computed on a basis similar to that for the urban areas, namely assuming that only part of the accumulated housing need will be liquidated in the first postwar decade. Requirements in these areas have been set at 94,000 units.²

On this minimum basis, a need for a total housing programme of 700,000 units is indicated for the first ten years after the war. Of this programme, slightly over 600,000 units represent the requirements of cities, towns, villages and other non-incorporated communities (excluding farm areas).

It is of interest to compare this estimate with others made by various sources in Canada, and with housing programmes contemplated in Great Britain, the United States and New Zealand. The Canadian Construction Association in a brief submitted to the Parliamentary Committee on Reconstruction and Re-establishment, suggested a building programme of 300,000 units for the first five years after the war, or 60,000 units per year.³ This estimate is only slightly below the one presented here, which recommends the construction of about 60,000 units per year for urban and rural non-farm areas and slightly less than 10,000 units for farm areas.

Two other estimates are considerably higher. One made by Mr. Frederick Babcock, a housing authority in the United States, puts annual Canadian housing requirements during the first postwar decade at between 75,000 and 100,000 units.⁴ The other estimate, quoted at a conference of the Ontario Association of Architects in Toronto in February, 1943, placed housing needs at between 114,000 and 145,000 units annually for the first 10 years after the war.⁵

1. *Final Report of the Subcommittee on Housing and Community Planning*, op. cit., pp. 146-147.

2. *Final Report of the Subcommittee on Housing and Community Planning*, op. cit., pp. 212-215.

3. Minutes of Proceedings and Evidence, No. 29, *Special Committee on Reconstruction and Re-establishment*, Ottawa, November 25, 1943.

4. A. R. Adamson, M.P., statement in the House of Commons, Ottawa, February 18, 1943. *Hansard*, Vol. LXXXI, No. 16, p. 545.

5. Canadian Institute of International Affairs, *Homes orhovels*, "Behind the Headlines" Series, Toronto, 1943, Vol. 3, No. 5, p. 36.

There is no doubt that a substantial number of new homes of a sound construction and desirable standard is needed. But even if our housing programme should remain below the level quoted by the last two sources and reach a figure of 700,000 units for the first postwar decade, we shall be able to say that Canada has gone far toward improving the housing standard of her people. This is perhaps best brought out by the fact that a programme of perhaps 700,000 units would involve nearly one-and-a-half times the construction activity of the prosperous 'twenties.

Figures on housing programmes contemplated in other countries are significant. The United Kingdom plans on building three to four million housing units in the first postwar decade.¹ The United States aims at a programme for non-farm areas alone varying between nine and twelve million units for the same period.² New Zealand, a country with one-seventh the population of Canada, contemplates building 108,000 units.³ These figures indicate that other countries, as well as Canada, have accumulated substantial housing deficits whose liquidation will not only mean a marked raising of the housing standard, but will also provide employment for millions of people. On a per capita basis, Canada would have to build between 750,000 and 1,000,000 units in the first postwar decade to keep pace with these nations.

For Canada, it has been estimated that an annual building programme of 70,000 units would provide employment for a full year for over 200,000 men working on the building site and in the industries supplying materials and transportation services. The cost of such an annual programme would come to between \$250 and \$300 millions, or about three-quarters of what was spent on airplane production during 1943. To finance such a programme, it will be necessary for about one-third of the total outlay to come from public funds, these for the most part representing low-interest loans to private individuals, local housing authorities and limited dividend corporations.

POSTWAR ECONOMIC POLICY

1. *Housing as an Employment Factor.*

Expenditures for housing construction can achieve marked significance as an employment provider and as an element in determining the level of the national income. In respect to the first, it is possible to distinguish three types of employment afforded by construction expenditures:

(1) On-site or direct employment, that is, employment at the site of construction. A recent study indicated that the building of a

1. "The Economist", London, July 31, 1943, p. 132.

2. M. L. Colean: *The Role of the House-building Industry*, National Resources Planning Board, Washington, D.C., 1942, p. 3.

3. *Report of the Department of Housing Construction*, Wellington, New Zealand, 1942.

medium-sized housing unit provides about 2,300 man-hours of such work.¹

(2) Off-site or indirect employment. This term refers to that employment which is directly attributable to the construction project but which is provided away from the site, primarily in the manufacture and transportation of construction materials. The above-mentioned study found that the construction of one housing unit provides slightly over 3,000 man-hours off the site.

(3) Secondary employment, here defined as the additional employment generated by the expenditure of the wages and incomes received by those engaged in the building industry and in the industries supplying materials and transportation services. The volume of secondary employment created by a given expenditure will vary, depending, among other things, upon the phase of the business cycle during which the expenditure is incurred.²

In 1928, when an estimated 50,000 housing units were built in urban areas alone, this industry provided work for over 140,000 Canadians (on-site and off-site)³ in addition to work for many thousands who found employment in the industries, trades and services which benefited by the disbursement of wages and salaries received by those employed in the building and auxiliary industries. In 1933, however, the total direct and indirect employment provided by house-building was probably of the order of only 40,000 to 50,000 men and there was consequently considerable unemployment in the building and related industries. The ramifications of such a drastic decline becomes obvious when the cumulative effect of such a curtailment upon the economy as a whole is considered.

2. *Housing and National Income*

The maintenance of a high level of national income depends to a great extent on the maintenance of a high level of capital formation. "The aggregate capital formation in any year represents the total amount of goods and services withdrawn from current income for the purpose of expending either the production equipment or the material fabric of the community."⁴ Expenditures for new residential construc-

1. O. J. Firestone: *The Labour Value of the Building Dollar*. Housing Administration, Department of Finance, Ottawa, October, 1943.

2. For a recent appraisal of the significance of secondary employment and other cumulative effects of initial construction expenditures in Great Britain, see R. F. Bretherton, F. A. Burchardt and R. S. G. Rutherford: *Public Investment and the Trade Cycle in Great Britain*, Oxford, G. B., 1941, p. 311ff.

3. The above estimate is based on the assumption that the employment content of houses built during the twenties was about of the same dimensions as during the 'thirties and that a full employment year for factory workers amounted to 2,000 man-hours and for construction workers to 1,700 man-hours. If account were taken of the possibility of improved technology in house building in the 'thirties as compared with the 'twenties, the total employment provided in 1928 would be somewhat larger than is indicated above. The possible difference is, however, not significant enough to change the picture presented here.

4. *Report of the Advisory Committee on Reconstruction*, Ottawa, September 24, 1943, p. 12.

tion are a significant element in capital formation, and for this reason can assume marked importance. As has been pointed out in the Main Report of the Dominion Advisory Committee on Reconstruction, in Canada, for every four dollars spent on the necessities and comforts of life, a fifth dollar is spent in prosperous times on capital outlay. Unless this fifth dollar is continuously invested in capital goods, including residential construction, Canadians will not be able to earn the other four dollars necessary to insure continuous prosperity and an adequacy of employment opportunities.

Figures assembled in Table III indicate the volume of house-build-

TABLE III.—*Number of Housing Units Built and National Income, Canada, Great Britain and United States, 1921-1939.*

Year	Number of units built			National income		
	Canada	England and Wales	United States	Canada	Great Britain	United States
	000	000	000	\$000,000	£000,000	\$000,000
1921	—	39	449	3,507	—	59,412
1922	32.2	111	716	3,671	—	60,707
1923	35.6	92	871	3,847	—	71,626
1924	33.8	86	893	3,865	3,887	72,095
1925	34.9	137	937	4,239	3,794	76,047
1926	39.2	173	849	4,507	3,753	81,551
1927	45.0	218	810	4,738	3,897	80,051
1928	50.2	239	753	5,269	3,923	81,678
1929	48.5	170	506	5,273	3,926	87,234
1930	39.0	202	330	4,452	3,812	77,319
1931	38.0	184	254	3,580	3,438	60,300
1932	26.1	201	134	2,813	3,327	42,932
1933	14.4	200	93	2,723	3,533	42,183
1934	15.8	267	126	3,147	3,713	49,502
1935	19.2	329	309	3,371	3,919	54,406
1936	22.2	325	347	3,827	4,151	62,864
1937	26.5	346	403	4,368	4,351	70,494
1938	28.5	338	466	4,291	4,490	65,461
1939	32.2	—	587	4,553	—	—

Source: (a) Data on housing units for Canada relate to urban areas only and are taken from the Report of the Sub-committee on housing and Community Planning, op. cit. p. 34. (b) Data on housing units for England and Wales published annually by the British Ministry of Health; total includes assisted and unassisted building. Compilation reproduced from H. W. Robinson, *The Economics of Building*, London, 1939, Table IX, p. 119. (c) Data on housing units for the United States are estimates of all units built, assisted and unassisted, excluding farm areas. Compilation reproduced from *Toward More Housing*, Temporary National Economic Committee, Washington, Monograph 8, 1941, p. 23; for the period 1929-1939, revised figures by courtesy of United States Bureau of Labor Statistics. (d) National income estimates for Canada taken from *Monthly Review of Business Statistics*, Ottawa, June, 1943, p. 6. (e) National income estimates for Great Britain for the period 1924-1937 taken from A. L. Bowley: *Studies on National Income*, Cambridge, 1942; figure for 1938 taken from *British White Paper on War Finance*, London, 1943. (f) National income estimates for the United States taken from S. Kuznets, *National Income and its Composition, 1919-1938*, New-York, 1941.

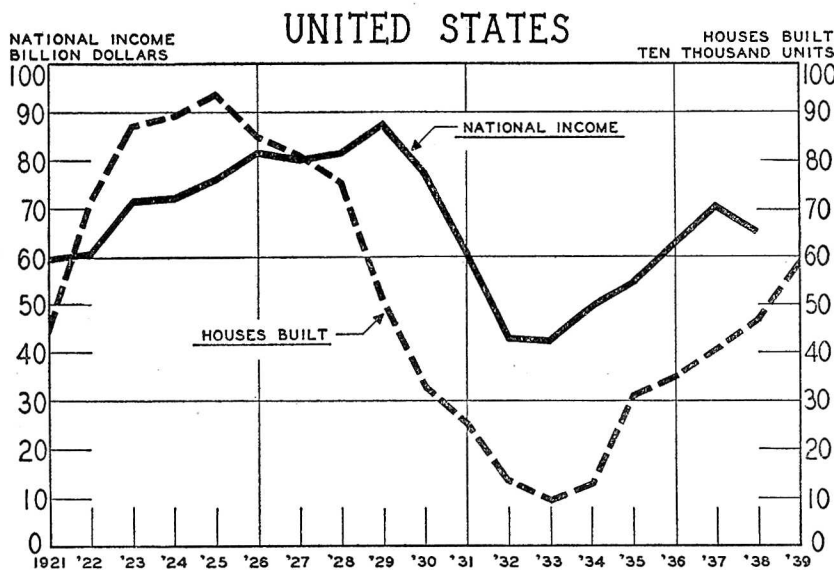
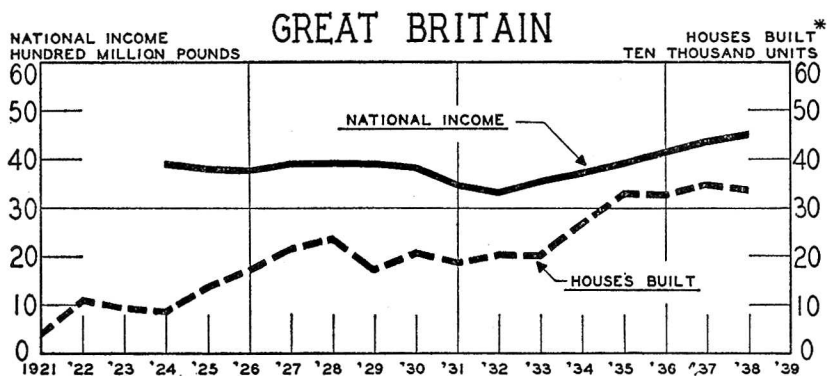
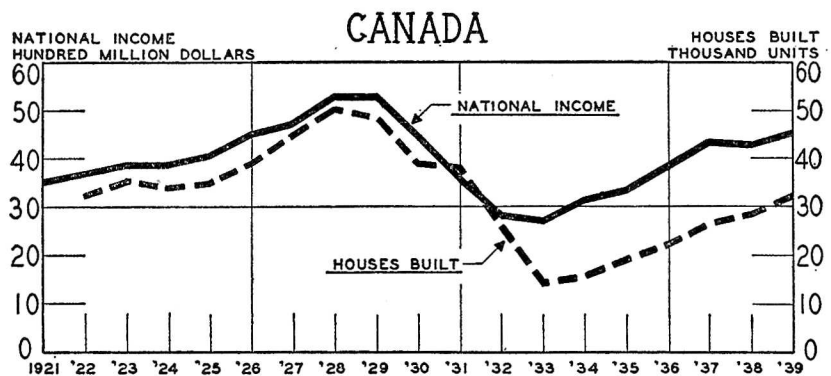
ing activity and changes in the level of national income in Canada, Great Britain and the United States. The peak of housing construction during the 'twenties was reached in Great Britain in 1928. In that year, in England and Wales alone, 239,000 housing units were built. The number of units declined to 184,000 in 1931, but from that year onwards, the number constructed annually rose continuously until 1937, when 346,000 units were built. An entirely different picture presents itself for Canada and the United States. In Canada, the peak of house-building was experienced in 1928 with approximately 50,000 units in urban areas alone as against 14,000 in 1933. The peak of residential construction in the United States was recorded in 1925, when 937,000 units were built in all non-farm areas as compared with 93,000 units in 1933.

Fluctuation in the volume of residential construction is only one of the numerous factors which contribute to severe changes in the level of national income in Canada, Great Britain and the United States. The importance for these three countries of residential construction as a factor determining national activity is often given insufficient emphasis. This neglect is doubtless due to the fact that direct expenditure for housing alone is a rather small proportion of the gross national product.¹ However, as Figure I shows, trends of house-building activity and of national income seem to indicate an inter-relationship too marked to be neglected. There is every reason to believe that in the 'thirties, the effect of substantial house-building activity in Great Britain and of the considerable drop in Canada and the United States made itself felt in the level of national income produced in these countries. During the period 1929-1933, national income in Great Britain declined by only ten per cent, while in Canada and the United States it fell by about 50 per cent. The recovery from the depression was slow and hesitant in both Canada and the United States. By 1938 the national income in current prices of these two countries was between 20-25 per cent below the 1929 level, while in Great Britain it was 15 per cent above.

This is not to suggest that expenditure on residential building is the most significant factor determining the level of national income but further study of the impact of this type of outlay leaves hardly any doubt that it can be an important element in the maintenance of productive activity. Although British housing policy during the inter-war period was by no means uniform, but rather designed to meet the situation of the day instead of the requirements of a long-term policy, there is reason to suppose that some British authorities, like their Swedish

1. Gross national product for 1928 is estimated for Canada by the Dominion Bureau of Statistics at 6.1 billion dollars (preliminary estimate). Assuming that in this year of great expansion of capital equipment 20 per cent went into capital formation, this would involve about 1.2 billion dollars. Expenditures for residential construction were probably in the neighbourhood of \$200 million, which is only about 3 per cent of the gross national product, but 17 per cent of gross capital formation. The significance of this is that housing expenditures should be seen in the light of their contribution to capital formation and not be measured by their contribution to the total national product.

FIGURE I



* ENGLAND AND WALES ONLY

and Danish counterparts, believed in the possibility of using expenditures on housing construction as anti-cyclical measures. That this is the case is perhaps shown by the fact that out of a total of four million new homes constructed during the inter-war period nearly one and a half millions were built with public assistance of one kind and another.¹

3. *Housing Expenditures as an Anti-cyclical Force.*

If, as the above seems to suggest, planned expenditures for residential construction can exert an important anti-cyclical influence², then the proper timing of a Canadian postwar housing programme can assume marked significance in an economic policy aiming at a desirable and constant level of employment in this country. Since it is likely that public stimulus, either in the form of loans or grants-in-aid, will be responsible for a substantial section of the Canadian housing programme, the power of Dominion authorities in inducing house-building can be exercised in such a way as to retard the volume of residential construction when this industry approaches boom conditions and to raise the level of activity when signs of an impending depression threaten to cause stagnation.³ Because changes in the level of construction activity may easily be transmitted to other industries and affect the economy as a whole, the importance of the timing factor in direct public and publicly induced private expenditures is great.

The idea of using housing expenditures to influence the course of the trade cycle has recently been put in the foreground both in Canada and in Great Britain. The report of the Subcommittee on Housing and Community Planning recommended for the Dominion an annual volume of residential construction varying between 45,000 and 100,000 units, depending on the phase of the business cycle.⁴ In Great Britain, the London *Economist* has come out strongly for the preparation of plans which would assure that housing expenditures could be used as a "stabilizer" of employment. In dealing with this all-important question, the *Economist* states: "This question can only be answered by comparing the various outlets for Government, or Government-induced, investment at a time when total investment tends to fall below the

1. Critics of the British housing policy claim that not enough was done to apply housing expenditures as a true anti-cyclical force. In particular, they point out that British housing policy made no attempt, "to plan a reserve of building which could be undertaken in a future period of unemployment in the building trade or in industry as a whole." See R. F. Bretherton, F. A. Burchardt and R. S. C. Rutherford, *Public Investment and the Trade Cycle in Great Britain*, op. cit., p. 138.

2. For a detailed statistical analysis of the residential construction cycle, see H. W. Robinson, *The Economics of Building*, Westminster, Great Britain, 1939.

3. For a discussion of the controversial subject as to the casual relationship between withdrawal of public assistance and recovery in private residential construction, see W. F. Stolper, *British Monetary Policy and the Housing Boom*, Quarterly Journal of Economics, Cambridge, U.S.A., 1941, No. I, Part II, pp. 6-9.

4. *Final Report*, op. cit., p. 151.

level of savings, thus threatening a waste of resources through unemployment. There can be no doubt, on any such comparison, that investment in houses must rank high on the list of outlets. Quite apart from the fact that the improvement in housing standards is in itself desirable, investment in housing has two advantages as an economic stabilizer. First, the rate of building can be expanded more rapidly than the production of most other things; since many of its operations can be performed by workers without special skill, the building industry can rapidly absorb unemployed workers from other industries, without a prolonged period of training. There are, of course, limits to the dilution of the labour force of the building industry as there are to the rate at which the ancillary industries can expand their output. But these limits are probably wide enough to permit a substantial expansion in investment in housing at comparatively short notice. Secondly, investment in houses, unlike investment in most other industries can be widely diffused geographically, or, if need be, can be diverted to given areas threatened by unemployment. The case for using the building industry as a stabilizer of employment is a strong one. It should be possible to fix a minimum rate of building over a long period providing stable employment for a moderately-sized building industry which, in wartime parlance, might be termed the 'garrison.' This 'garrison' industry should be large enough to handle the average volume of spontaneous demand for houses plus the long-term induced programme on a minimum, or at least low, basis. Whenever cyclical unemployment threatens in other industries, this garrison should be temporarily expanded, as the regular army is increased by the calling up of the reserve of 'territorials' in time of war. Replacement at a rate above the minimum should thus be regarded as one of the things the community can do when, and if, it is threatened with idleness of resources. The argument against this use of the building industry is an argument in favour of the kind of rigidity which can have no place in a progressive economy."¹

It is now possible to summarize broadly the factors which have led to the accumulation in Canada of a substantial number of sub-standard and slum dwellings, and to indicate some major principles which should guide a positive postwar housing policy.

The reasons which have led to a substantial building deficit are:

Guiding Principles.

(1) The rapid growth of our urban population, for a substantial proportion of which no satisfactory housing accommodation has ever been provided.

(2) The accumulation of a great number of old houses, particularly in many of the larger cities in Eastern Canada.

(3) The lack of proper town planning, which has brought about a haphazard assembly of houses, rapid deterioration of neighbourhood sites and disproportionate burdens for property owners.

(4) Shoddy construction, particularly in the Prairie Provinces, has brought about an accelerated rate of obsolescence.

1. "The Economist", London, February 19, 1944, p. 246.

Some of the more important principles which the experiences of the past suggest should guide a Canadian postwar housing policy can be enumerated as follows:

(1) Because of special conditions prevailing in this country, the rapid growth of our cities, regional factors, etc., Canada needs housing legislation especially fitted to her requirements and applicable to the varying needs of the different areas comprising this Dominion.

(2) A fundamental of a substantial housing and slum clearance programme after the war is proper town and regional planning in all parts of the Dominion.

(3) A housing programme for the first postwar decade should strive at a minimum number of 700,000 units to meet the requirements of the urban and rural population.

(4) To avoid the recurrence of slum conditions and the accumulation of substandard houses, provisions for the orderly withdrawal of obsolete homes are necessary.

(5) Special measures are needed in the low rent housing field to meet the needs of many families in the low income group. Separate provisions are necessary to enable the higher bracket of the low income group and a proportion of the middle income group to acquire homes of their own by making available loans bearing low rates of interest and having a lengthy amortization period.

(6) Increased efficiency of the building industry is an essential element in reducing capital costs of acquisition and in assuring a satisfactory standard of construction.

(7) Finally, there is the very important matter of incorporating a postwar housing programme in the broader framework of an economic policy aiming at the full employment of our human and material resources.

It will depend on the degree to which these principles find application in the formulation of postwar housing policy whether the goal of providing a decent home for every Canadian family is achieved within one generation.

Government Planning in Canada



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The title of the subject which was given me is "Government Planning in Canada" but it will be more correct if you understand it as "The Role of Government in Relation to Housing and Community Planning". I am not able to do more than outline what I think government in Canada can and should do. I am not here as a spokesman of the Dominion government, to tell you what the Dominion is actually going to do. Postwar housing and town planning policy, so far as I am aware, has not yet been determined, either in principle or detail.

Housing and Community Planning—or town planning, as the latter is still commonly known—is unquestionably one of the major fields of postwar domestic policy, but you must remember that even that important subject is only one of many, all of which have to be acted upon if we are to have postwar plans worth the name. Housing and town planning projects all across Canada will be needed to fit into these, on various counts: because of all our present deficiencies in these fields; as employment projects; as part of the necessary fiscal measures in a "full employment" policy; and because better living conditions, urban and rural, and cities and towns we can be proud of, ought to be part of our vision of the postwar world.

Another important preliminary that needs to be made clear is the difference between *planning* and *plans*. This applies not only to town planning but to other fields of economic policy as well. The terms are on everybody's tongue today, along with "democracy", "full employment", and others which are freely used but seldom defined. Planning is certainly a necessity to meet postwar tasks. But it is more than drafting a plan—a chart or a blueprint—once and for all. There is a difference between mere plans—especially if they are not based on some industrious preliminary measurement—and the practical, continuous procedures of putting them into operation.

In town planning it happens that a carefully coordinated map of the projected territory is an integral part of the job. Even here, however, and certainly in other parts of the post-war picture, we need not only initial outlines and projections, but acceptance of the necessity of comprehensive and long-range *planning*. Planning means getting into working order a rational organization to meet certain defined ends. It happens that this is better known and accepted for "town planning" than almost any other field of economic policy. It will be useful, how-

ever, to remember that it applies to other matters of post-war reconstruction and that it is really shorthand for several important components. Planning involves at least four things. First, an *objective*; we have to know what we are trying to do. Second, it requires *data*; we have to define and analyze the existing situation, find out where we are and where we are going already. It is essentially, in the third place, a problem of *cooperation*, between the various interests and groups concerned. Town planning, as we shall see, requires not only action at all three levels of Canadian government, but participation and representation so that the action is taken democratically. Nobody in the community—least of all the great mass of wageearners in our cities and towns—can afford to be disinterested in urban planning.

Finally, it involves the *techniques* of planning—preliminary surveys, the formulation of an integrated program, methods of administration, control, and finance. Obviously, a great many things have to be done concurrently. That is the nature of good planning. They can be done badly — uninformed, individualistically, trial-and-error fashion—or they can be done well. We shall never be well housed nor make the most of our urban or our rural resources until we learn this lesson.

Confining ourselves now to housing and related policy, there are two ways of approaching it. The old-fashioned though still prevalent one is as a limited matter of doing something for the poorer groups in the community and of removing eyesores by rebuilding the slums and blighted areas of the city. The other way, which is now coming into its own, is to see housing as part of the great task of mobilizing human resources to achieve high standards of living and the best possible environment. Not that we do not need slum clearance, or to reduce and eliminate the overcrowding of human beings and deterioration of property which is growing year by year as the war goes on. We must place these things in their right perspective—good housing as part of the social minimum, construction projects as part of a full employment program, slum clearance and town planning as part of the great task of urban redevelopment. All of these have welfare aspects, but they are sound economic policies in their own right too. This I trust will be made clear in subsequent lectures which deal not only negatively with the wastes and costs of blighted areas, but positively with the effect of a long-range housing program as a stabilizer of employment and the national income. Everyone, not merely the slum dweller, has an interest in housing in this sense.

The nature of town planning.

The first essential is an understanding of the ordinary process of growth of the modern urban community. First it must be emphasized that town planning is not merely an æsthetic matter—of more parks or landscaping, or a few handsome buildings—nor a matter of arterial roads and better traffic arteries. Nor, even as I have already mentioned, a matter of slum clearance, or the elimination of deteriorated or unsightly areas. It is not purely physical at all, but economic in

origin. Most of our cities have grown without any provision for that growth in advance; without any endeavour to make a rational pattern of industry, residence, recreational facilities and so forth, without any attempt to measure what proportions of these facilities are required for a particular population. The pattern of unregulated, haphazard growth has been repeated in city after city so that it is all too familiar to the town planners. For that matter, it is familiar to any observer who looks at a city as a whole—from its centre to its fringes, from waterfront and earliest location to the newer suburbs and still-remaining farm land on the outskirts.

The pattern is one of rings of growth, varying somewhat according to topographical features and history, but revealing a cycle of changing functions and migrant populations. The central areas increase their industrial and commercial usages, invade the property which was once residential. The residents move out, leaving a ring of deterioration, but also of comparatively high land values held or bid up in the hope of profiting from the demand for commercial usage. Speculators, slum landlords, the unwillingness of city assessors to recognize a change in the real or probable values, may all aggravate the problem. As many former residents as can move out to areas not yet built up where they can get more space and newer accommodation; builders, real estate developments, transportation improvements (street railways, roads, and automobiles in modern times) aid this process. In many old cities, and Montreal is an example, there may be more than one such "ring". The accidents of parks, university buildings or streetcar lines or dead-end streets may preserve some properties and amenities, destroy others. Other things which should not be accidents, such as factories or railway sidings, also have their influence.

In the outskirts or suburbs there may or may not be protection. Some areas, unplanned from the start, may lack facilities, build narrow streets or poor properties. Others establish themselves as model cities, but at the cost of high taxes or of being wealthy dormitory areas rather than communities with balanced economic and social facilities. The hardest battle which the town planner is still fighting is to convince the public and local governments alike of the advantages of the "neighbourhood community" which should be reasonably self-contained instead of a mere conglomeration of dwellings at the end of a car-line. It should have schools, libraries, parks, recreational facilities, but also (with reasonable protection and the encouragement of good building) industry and commerce,—places to work as well as live. Such an area may be more effectively located with reference to the country (and therefore, incidentally, to markets for farm produce); and better able to levy and collect its taxes. What we have instead are topheavy areas of all kinds, some poverty-stricken or insolvent, others tributary and overtaxed. This is why townplanners talk of a "master plan", for the metropolitan region as a whole. Before we can reorganize, even out some of the errors of the past, we must know the present pattern, and make at least a broad sketch of what we would prefer it to be.

This is the main picture. Some of the details are almost as important. If there are no plans, no guiding controls, even a desirable improvement in itself may make other matters worse. A new and modernized office building does not replan the district in which it is situated. If it happens to attract tenants from inferior accommodation within the area, the effect may be to deteriorate the value of the deserted properties. A new boulevard does not necessarily regenerate the district through which it passes; especially if it is not combined with slum clearance, replanning of the area, adjustment in taxes or assessments, it may merely expose the blight which was formerly built in, without providing any redress. Piecemeal traffic improvement may be nullified if "bottlenecks" are left untouched in other parts of the city: a high-speed road, street-car service or subway may be almost disastrous, by syphoning traffic and residential population away from the centre of the city and leaving intermediate zones abandoned, offering no incentives for improvement. Unless a pattern of land-use is established, for the city and its surrounding region as a whole, and measures taken to ensure that future development will conform to it, there is no guarantee that values and standards can be preserved in any particular area.

On the positive side, other examples could be cited to show that the concepts of modern town planning are much more elaborate than the popular—and vague—meanings frequently accorded to the term. The "green belt" or protective band of open space, farm land, and recreational area is a well-known one—though few if any large cities have it drawn, safe and sound, upon their zoning maps. The principle of the "neighbourhood unit" is much less familiar, though it is one of the most important for future housing or rehousing programs. New housing, whether it is low-rental housing for wage-earners or individual homeownership housing, whether it is in the inner areas of a city or in the suburbs, should not be *merely* houses. Each sector of population or residential units should be planned as a community. It requires, according to its size, a proper quota of schools, libraries, recreational facilities, medical, welfare and other services. The role of commercial and industrial establishments should be integrated into the area—not a few retail stores, with factories frowned on as undesirable appendages or encroachments,—but part of a rational industrial decentralization, which electric power, new techniques and materials, and natural resources development plans should aid and encourage. The experience of the Industrial Estates in Britain should be drawn on in this connection. Given such a basis, it should be noted, there is no need for a rehousing area to be composed of persons of a single or limited income group; nor for its revenue to be solely derived from residential properties. A third development which is well worth mentioning is the vision—it is merely a vision, so far—of a broadly-conceived and thoroughly well planned market terminal. This should provide efficient access as well as adequate parking space for farm vehicles, protected and attractive booths for the display of merchandise, storage and refrigeration facilities, organized relationship to rail transportation, and to

other needs of farmers and of customers; and there is no reason why community halls, libraries, theatres, etc. should not be planned in relation to the marketing centre. Of course, there is need for the architect and the artist in all of these things. I should be the last to deny the importance of landscaping, good taste, sound design, structural beauty. But the æsthetic features come—perhaps not entirely of themselves, but much more easily—if we apply, more resolutely than ever in the past, a community approach to the physical components, even to the statistics, and certainly to the economics, of urban redevelopment.

Two Fundamentals.

How is town planning to be implemented as a postwar program? In a Canadian context, the answer has to be given in two steps. Certain fundamentals demand consideration first. The second concerns the roles of Dominion, provincial and municipal governments in the total procedure.

The first fundamental is the large-scale character of planning required for community re-building, and the necessity of appropriately bold measures to finance it. There is a great danger that we shall not visualize properly at the start the dimensions of town planning. In most of the bigger cities the areas in need of clearance, reorganization or rebuilding are large, particularly in the centre, and there are also substantial intermediate areas where part of the cycle of blight has had its effects. A small-scale or patchwork attack will not achieve very much, though it may cost a good deal in the aggregate. Planning on a worthwhile scale will be more economical in the long run; but since so much of the interior land is rated at high values, the problem is serious from the point of view of cost. It is probably important to reiterate that it is not enough to look at the problem in terms of slum clearance. This has long been a favourite phrase, but it can be a hampering one. Urban "blight" affects not residential areas alone, but commercial properties of many kinds: and it is not merely physical—the blight of deterioration, congestion, neglect—but economic—the burden of excessive taxes, outlived valuations, outmoded uses. Equally, the improvements which alone will justify themselves by radical increases in efficiency and amenity may involve acres of trackage, harbour installations, new traffic arteries, provision for open space, and so forth. In physical terms at least, Montreal has witnessed something of what is involved, in the change from the "hole in the ground" to the new C.N.R. terminal. Zoning regulations alone cannot be expected to bring about these vast transformations of the *status quo*. Accordingly, "urban redevelopment" rather than merely "slum clearance" or the "condemnation of insanitary properties" must be the modern town planner's credo. And the nub of this major operation is finance.

It will run to many millions of dollars to reorganize central city areas, acquire the properties involved, demolish, rebuild. Costs will be lighter, of course, in the newer or less built-up parts, or in new "reception areas" created on the outer margins; and also for the smaller towns. But hardly anywhere will the finances be forthcoming without

special organization for the purpose, (a) because of the sheer size of the ventures, (b) because there can be little or no prospect of immediate recoupment or profit, and there must almost certainly be losses in a few areas, and (c) because the ultimate results, which can be distinctly profitable, in either revenue or welfare terms, cannot be realized for a substantial period of years.

There are two possible types of such organization, which have received comparatively little discussion in Canada, though the subject is attaining greater prominence in the United States.¹ The first is that the Dominion government should organize urban reconstruction loans, that is, should offer Urban Reconstruction Bonds to provinces or municipalities at low rates of interest, with arrangements for repayment which would be gauged to the nature of the enterprise, being particularly light in requirements for the first few years, and extending repayment over a period of at least thirty years. It is quite probable, unfortunately, that easy terms may not be sufficient inducement. The general recommendation by some American economists is that no authority should have to undertake to recoup through repayment of the loan more than two-thirds of the total cost of acquiring all the land required, the problem in these areas being that the high land values are not justified and cannot be supported. Once the metropolitan centres are rebuilt so that they are thoroughly efficient, there is no doubt that their revenue situation will improve materially over the present; but in the initial stages there are some costs that simply have to be written off. In this country most people are likely to argue that there is only one governmental unit, namely, the Dominion government, which has resources and credit backing, sufficient to ensure that it will be achieved by financing which is really long-term and low-cost.

This may seem to some an unwarranted development of public investment. Actually, it meets the logic of modern urbanization and the facts of our past mistakes. As a recent American exposition has put it,

"... the contingency must be faced, that in the case of many individual parcels the cost incurred might be greater than the returns in dollars and cents from subsequent use of the land in accordance with the master plan, although probably the value of all the real estate in the metropolitan area would be enhanced by more than enough to compensate. Even so, in the long run, the federal government might be compelled to assume a considerable part of the burden of paying for the past errors of the cities and towns—e.g., for their inability to foresee and plan for the economic and social effects of the advent of the automobile and the airplane, for the bad judgment exercised by people and institutions in buying or lending money on land, and probably to

1. Cf. Guy Greer and Alvin H. Hansen: *Urban Redevelopment and Housing*, Washington, National Planning Association, December 1941. For an authoritative detailed presentation of the problem, see *Public Land Acquisition*, (Part I, Rural, Part II, Urban), Washington, National Resources Planning Board, June 1940, and February 1941.

some extent for the results of greed and even crookedness on the part of individuals.

"Is it proper to ask the federal government to assume the financial responsibility that might be involved? If it were merely a matter of 'bailing out' an individual, a group of individuals, or even such institutions as life insurance companies and savings banks, it would be questionable to say the least. But more than half the population of the country is directly involved, and the welfare of the entire national economy is at stake. Under such conditions, there would appear to be no alternative to having the federal government shoulder whatever the burden may turn out to be, as the cost of a job of civic sanitation—of cleaning up the social and economic mess left by past generations, for which only society as a whole can be held mainly to blame."¹

The advocates of this method assume, of course, that "the *quid pro quo* of federal financial aid will be the initiation by the urban community of a long-range program of replanning and rebuilding", and that arrangements will be made to secure that proceeds from the new development are properly earmarked towards repayment of the loan.

The second approach, or as some would put it, the other extreme, is to finance and operate the project through unaided private enterprise, probably in the form of an Urban Redevelopment Corporation whose bonds would be taken up by individuals and companies (which might include real estate concerns, utilities, financial institutions, etc.) Presumably the Corporation would operate on some kind of limited-dividend basis; it would constitute in the field of town planning something of a parallel to the limited-dividend housing company which is favoured in some quarters as a supplement or substitute for a municipal housing authority as the agency for building and operating low-rent housing. It is reasonable to expect a good many industries and interests to see the case for reorganization and re-development of areas which in the long run will become a revenue proposition. A well-planned district in a city is a valuable asset, and it may be evolved from something which has been previously a source of loss. It is feasible to present it as a profitable investment if improvement can be tackled on a sufficiently large scale. The question is whether the obstacle already referred to will loom too large.

Between these two methods a compromise procedure is possible, by which Reconstruction Loans from the government would be made available to a Redevelopment Corporation combining both public (presumably municipal) and private interests. Since so much is at stake in any urban redevelopment which is more than simply a slum clearance or rehousing project, the assurance of local government participation has much to recommend it. Whatever is done, however, it is important that

1. *Op. cit.*, pp. 6-7. For Canadian conditions, "more than half" (a reference to the principal urban areas of metropolitan character) should be changed to "at least a third". More than half would be correct if the statement were applicable to all urban population in the Dominion (which is now more than 55 per cent urban) but this is questionable.

the plan of the redesign and new utilization of the area should be made available for public examination and explanation before the project is proceeded with.

The second fundamental is the matter of legal power, to condemn, value, and acquire land. Local authorities must have such powers, and—what is more important in the first instance—the powers must be defined with specific reference to the ends they are designed to serve. In most provinces, cities and towns already have powers of a general and overriding nature to acquire land needed for public purposes, but valuations put upon the land, if they are not regarded as satisfactory by the owner, must go through a process of arbitration. Are we prepared to set limits to such values for slum or blighted properties—particularly where a valuation unjustified by present uses is adhered to, or may be enhanced only by the subsequent development of the land which a replanning project involves? Britain has had a substantial experience in this field, and the principle has been more or less accepted that for slum clearance purposes certain minimum valuations may be compulsorily placed on the sites. There may, of course, be very considerable difference between slum clearance for simple rehousing on the one hand and major urban redevelopment on the other, and in some cases, particularly in the outer areas or smaller towns, no serious problem may arise. It is important to note, however, that there are plenty of American (and potentially, Canadian) examples of areas where rehousing is needed but in which land costs are too high: if the legislation itself sets a maximum to the cost of land, as low-rent housing legislation in the United States does, some of the worst spots of built-up but deteriorated and overcrowded territory in the cities become virtually untouchable on this account.

When the problem of land acquisition has to be faced on a really vast scale, as it now has in Britain since the blitz, the question of powers of acquisition, principles and levels of compensation, and the control over future land use, become primary and vital. The meticulous and difficult work which was undertaken by the Uthwatt Committee,¹ the drastic nature of its major proposals, and the controversy which still rages around the non-acceptance of them, so far, by the British government, bear full witness to this. While Canada has none of these enormous war-town areas to complicate our postwar program, many of our wartime industrial and military developments, as well as our untouched backlog of urban replanning and rehousing needs, make the problem one of great dimensions. It would be foolish indeed to minimize the obstacle which to be overcome. The possibilities of opposition and delay, much of it from a variety of small interests, and from ignorance or suspicion of the advantages of redevelopment as

1. *Expert Committee on Compensation and Betterment* (Mr. Justice Uthwatt, Chairman), Interim and Final Reports, April 1941 and September 1942, H.M. Stationery Office, London. A summary of the principal recommendations of interest to Canada is included as an Appendix in the Report of the Subcommittee on Housing and Community Planning (Advisory Committee on Reconstruction), King's Printer, Ottawa, 1944.

much as from real calculations of gain and loss, must be frankly met. We cannot have new and well-planned "city areas of the future" or housing conditions of which we shall be proud, without land. And if the land is not ready sufficiently in advance—which means soon—there will be no adequate program to provide employment and construction expenditures during the postwar gaps.

The other branch of the answer to our question concerns the administrative action necessary to put force behind a town planning program. This takes us back to the emphasis made at the outset, that planning is a *continuous* operation; and because this is Canada, it is called for at all three levels of government. The Dominion, the provinces, the municipalities—each has a role which cannot be effectively supplanted by the other; and, equally, the greatest amount of intelligence and enthusiasm manifested at one level alone will not suffice by itself if there is inertia or lack of understanding at the other key-spots—at least if a nation-wide program is our objective.

To take first the Dominion government, the prime need which it can serve is education, encouragement, and detailed assistance in explaining the techniques of town planning. As I have tried to emphasize, "town planning" is on everybody's lips; but expert knowledge of how it is done—not merely as an architectural or survey job, but as a functioning administrative organization—is seriously limited. There is a great fund of practical experience to be drawn on, if we wish, from Great Britain, some European countries, and the United States. Potentially, there is available a great deal of statistical and other material, from such sources as the Housing Census and the records of municipal finance, dealing with the economics of present urban areas, which are as important as the town planner's maps. But this cannot be adequately assembled, still less organized for effective Canadian use, unless some full-time personnel are established for this purpose. Educational information is needed on the principles of town planning, which will expound simply but soundly not merely the uglinesses but also the inefficiencies and costs of the present lack of planning; and positively, the implication of these principles for industry and commerce, real estate, traffic and transportation, for housing, welfare services and amenities, for democratic community living, for municipal finance, and several other branches of the subject, so that its *extensiveness* as well as its importance should get the recognition it demands. The logical next step is the preparation of a comprehensive series of manuals of procedure, covering all the stages of development of a master plan; and probably extended to suggestions on the form of provincial enabling legislation, charters for urban redevelopment agencies, and so forth.

These functions are clearly large enough to justify the setting up of a Town Planning Agency or Bureau within one of the appropriate Departments. Preferably it should be coordinated with the Housing Administration, or it might be one of the sections of such an administration if this were reorganized and enlarged, but it would be necessary for it to have a reasonable degree of working autonomy if it is to

succeed in its pioneering type of work. If it is a subordinate or undernourished unit, it could be rapidly reduced to assisting the piecemeal planning around the immediate sites of housing schemes, or even pious advocacy of general town planning with little hope of making headway against departmental preoccupation with getting houses built. Obviously, on the other hand, the Town Planning Bureau cannot succeed unless it develops cooperative relations with the Housing Administration, and with many departments of government.¹ These include, incidentally, not only departments such as Public Works and Transport, but also Agriculture, and Mines and Resources, because the line between urban and rural planning cannot be arbitrarily drawn, either on local or regional projects.

Specialists in town planning methods are so scarce that there is much to be said for the proposal that the Bureau should retain one or more to give field service, i.e., to act as advisers to provinces or municipalities, on request, to assist them in building up their own resources, staffs and plans. These Dominion representatives naturally could assist directly and materially in making known to local areas the material prepared by the federal Bureau. Since citizen interest in the whole subject is important, there would be a place also for a properly-equipped publicity section.

There can be little doubt of the value which such a clearing-house of *expertise* on town planning could have, in giving leadership, stimulating current progress, and spreading available experience to better effect across the country. If a policy of Dominion loans for urban redevelopment were adopted, the Bureau could have important fiscal functions too, for it would presumably advise on the adequacy or otherwise of the plans for a given area seeking eligibility for these loans. Whether the case for federal financial participation will be accepted remains to be seen, however. If initiative in this respect were left to provincial, municipal or private agencies, there would still be need—perhaps even greater need—for advice on techniques and procedures. This is a new field for Canada, however: and there are probably a few hardy souls who will maintain there is no place for a Dominion Town Planning Agency at all, and that everything in this field should be completely “left to the provinces”. The results in terms of delay and inertia and unequal development for most parts of Canada would not be confined to town planning, but would apply to housing and many varieties of public works projects as well.

1. My own preference would be for a revised Housing Administration which would have at least five divisions: Town Planning, Assisted Financing (home-ownership), Low-Rent Housing (including a section on estate management and welfare organization), Farm Housing, and Home Improvement. It would seem to me desirable also to equip the Town Planning division with a well-chosen Advisory Committee which would include not only architectural and engineering representation, but at least one economist familiar with Canadian municipal finance. The Farm division similarly would require an advisory committee, because of the special and varied aspects of farm housing. But these details need not be pursued here.

Provincial Governments and Town Planning.

Most people would agree without hesitation, however, that provincial action is essential if satisfactory town planning is to be undertaken—though there may be a few who think that it is a matter which cities can or should handle for themselves; or, from a different angle, that the Dominion government might provide encouragement and assistance without involving the provinces at all. What is not sufficiently realized is the wide range of action which is in fact required if sound and vigorous town planning is to become an operative reality in Canada.

This is true not because of mere constitutional factors. Dominion-provincial and inter-provincial cooperation is necessary in Canada because of the sheer size of the country, and because regional decentralization makes sense in the face of our geographical characteristics—though this is a very different thing from a narrow, self-regarding or legalistic provincialism. Nor does the need for the interest of provincial governments arise simply because municipal and city charters are created by provincial authority. Extensions and improvements of existing powers are required, both in municipal and provincial areas of reference, and these will not be forthcoming without a live understanding of the nature and purpose of town planning; the legislation must be positive and directive, not merely negative or permissive in conception. It is not too much to say that a new spirit must infuse the legislators and their electors.

First, provincial town planning acts must be revised to take account of the pressing needs for urban reconstruction and the planned preservation and development of rural resources, and of the methods of achieving them. In all the principal urban areas the preparation of basic plans must be no longer optional, but mandatory. In Britain it has been compulsory for a number of years, and progress is now being considerably accelerated in readiness for postwar building; but the existence of a specific Ministry of Town and Country Planning, and the corpus of directions it is framing for the counties and local authorities throughout Britain, is evidence of the work still to be done. Progress will not be attained in Canada either, unless provincial legislation sets out in substantial detail the organization and procedures which are required.

Provincial authority is needed, in the second place, because town planning both in its "paper" techniques and its economic and social implications, extends far beyond the boundaries of most municipalities. In the metropolitan areas notoriously, a regional rather than a municipal or even city approach is needed. Even the finest kind of planning and administration within the main unit may be nullified if there is no corresponding development in the suburban and adjacent rural areas. Inter-municipal collaboration can be encouraged by provincial interest and coordination may require provincial legislation. The proper zoning and regional development of rural resources is even more clearly dependent on provincial action. Much of this is of direct concern for urban

amenities or salutary growth in the future. The protection of "green belts" and the preservation of recreation areas and natural beauty spots, are important examples; but this may well require regulation to prevent the acquisition and subdivision of rural land for speculative building on the one hand, and afforestation, river and stream development, and elimination of submarginal farming on the other. Again there are many parts of Canada where urban or partially urban units are too poor in resources or too remote to undertake town planning on their own, so that the requisite powers are not likely to be exercised unless the province, with the consent of the urban or rural municipalities, acts on their behalf. It is important to add that the charters of municipal housing authorities, for low-rent housing projects, will require provincial sanction, whatever the extent to which the form of such charters may be set by federal legislation or drawn up under the advice of the Dominion Housing Administration. In the case of rural or village housing, and of such amenities as community centres or rural electrification, the value of provincial participation is even more apparent.

The third reason for provincial action is as much to the point as provision for the financing of land acquisition is in the task of town planning as a whole. It is questionable whether the comprehensive types of reorganization and future development of urban areas which are called for can be contemplated, at least by the larger cities, unless revisions of the municipal tax system can be undertaken in the near future. It is true that most municipalities today are in a stronger budgetary position than they have been for many years. The existence of a surplus or of considerable debt reduction, however, does not eliminate the burdens of distorted land valuations, tax-delinquent areas, or a tax system related to capital assessment instead of the revenue-producing capacity of properties. Besides reforms of the assessment system itself another avenue of improvement which has to be considered is the redistribution of the cost of certain services (such as education, which also raises the question of larger-scale organizational units) between province and municipality.

Finally, none of these developments will be rapidly or successfully achieved without educational work and the provision of advice and technical assistance. Some types of such assistance may proceed more easily or appropriately from provincial sources (particularly Departments of Municipal Affairs): certainly in view of the scarcity of technical personnel already referred to, and the amount of work that waits to be done in Canada, there is room for a profitable division of labour between the senior governments in this whole enterprise.

Cities and Municipal Governments.

Whether town planning remains a phrase or becomes a reality depends on local government, above all the principal cities of Canada. That much is self-evident. It is the exact way in which local town planning is effected that is not sufficiently understood.

There are three stages or branches of administration which must be distinguished. The vital one is the "master plan" itself. The master plan is not something constructed out of the air but a coordination, evolved from the careful consideration and projection of a series of detailed studies—comprising not merely maps, but statistics of all the social and economic aspects of the community, the computation of desirable relationships of property, facilities and services to population density, estimates of probable growth, and the desirable land-use pattern at certain target dates. It is not confined, therefore, to streets and traffic, but includes (a) definition of existing residential areas and the required neighbourhood units of the future, along with the transportation, educational, welfare and recreational facilities necessary to serve them; (b) zone allocations covering all other forms of land use (including provision for new industry, amenities, population expansion, etc.); (c) building regulations, existing and required standards of property maintenance, etc., and, finally (d) the designation of areas where land, acquisition is needed, for demolition, revision of present use, reserves for protection against unplanned development, sites for new housing, and so forth.

To produce this plan requires a new kind of organization within the structure of city government. It is not a matter which can simply be left to the city engineer, or the city surveyor; it is even questionable whether these officers—potentially important though they may be—can play any effective part in the production of a master plan unless they are given a specific mandate, and authority to ensure the cooperation of all other city departments. In any case, however, because so many citizen interests are involved in a plan which will determine the future pattern of all the development within the area, and because some of the particular interests may conflict with each other or with the public interest, experience favours the setting up of an independent Board of Commission. This should be composed of responsible citizens each of whom may have acquaintance with the need for physical or economic planning in certain fields but is able to take a general view of the whole.¹ Somewhere in the future, of course, there must be a town planning expert per se. He may be retained for a given period or as a periodic consultant; he may or may not be a member of the city staff. His job is to work closely with the Board: to educate it on some matters, on others to secure its advice—particularly on the characteristics or problems peculiar to the city's population and environment. It is the Town Planning Board which must ultimately take responsibility for the final plan which they transmit to the city government, if it is to gain the confidence of the public generally. It must, of course, be voted on by the city council before it can become law, and it is practically essential that the plan and all its components should be placed on exhibition as soon as it has received the Town Planning Board's approval.

1. The Board might include in its membership the officers in the city's staff most acquainted with town planning techniques; it might also include an alderman or city councillor. But these variables would depend on the city's resources.

A master plan could, of course, be produced by a town planning specialist or an architect alone, if he is given sufficient time and facilities. For a small town, this is probably the most expeditious method; and the steps necessary to secure its adoption both by the municipal administration and the citizens of the community are much simpler. For the large city or metropolitan region, however, the task is incomparably greater. The intricacies of the situation will not be met without the threefold approach of a reconstituted Planning Department to provide a nuclear working staff, a Planning Board or Commission to undertake an independent analysis of the elements of the plan, and the sanction of the City Council (or Councils) and citizenry generally. It would be no more reasonable to expect the master plan to be drawn up by the City Councillors themselves than to expect, shall we say, members of Parliament to draft the details of the Budget. But they have every reason to initiate one, to make themselves familiar with all its features when it is submitted, and to give support to its translation into practice once it has been approved.

The final stage of the local plan is administration, including enforcement of the regulations. As already emphasized, by-laws, zoning provisions and all the rest of the technical paraphernalia become significant and effective *only* when there is a logical pattern and a predetermined trend on which they can be based. This pattern will stabilize the real estate values which are appropriate for particular kinds of land use; it should eliminate altogether many areas of speculation which might otherwise survive; it will be strongest of all if the city acquires (or if it already owns scattered lots), consolidates substantial areas in strategic locations, and reserves in districts not yet built up. A considerable part of the town plan, however, will remain to be effected through ordinances. On these, a fresh start after a complete review of all zoning regulations, building by-laws, and—it is devoutly to be hoped—assessment levels and procedures, is the most straightforward method: though the immediate purpose should be to free certain defined areas for clearance, redevelopment, and new housing communities. The first steps are the hardest; but we can be quite confident that their demonstrative effect will more than justify the effort.

Conclusions.

I think I have made it clear that town planning—perhaps better said, the achievement of planned and satisfying cities—is difficult. That is salutary, if so. Realization of both the basic principles and the many-sided nature of the task is not sufficiently part of our national—and local—consciousness. It is not enough to look around at drab streets, traffic congestion, slums and billboards and say: “Wouldn’t it be lovely if we had nice boulevards and new buildings and parks and decent housing for the poor!”—though even that is progress, so frequent is the lack of any reaction at all to the meanness, inefficiency and downright ugliness of parts of the city through which we pass day after day. Perhaps we harden ourselves to it unconsciously, in self-defence! What

has to replace this, however, is understanding of the particular things that have to be done to eliminate it.

Public information and discussion is therefore a keynote. Exhibits are very helpful. Doubtless a good many of you in this audience remember the excellent one which was prepared by the Architectural Research Group of Montreal. The only difficulty about that kind is that it presents the contrast between the good and the bad (the unplanned), without much indication of how to bridge the gap. The exhibition of the master plan just completed for Toronto goes a good deal further because it shows in detail how such a plan is built up. There is still need for much more—including descriptive booklets, films, and courses like the present one. The most important implication of all, however, is that urban and rural planning at all levels of government must strive for democratic participation at the administrative stages. This means effective demonstration of the wastes and evils of lack of planning at present—in terms of tax revenues, property values, accident rates, health and mortality conditions, school facilities, and so forth. It means presenting the case for reform to all the groups concerned—not merely property owners and electors, but citizens as residents and as wage earners, the utilities and transport concerns, industrialists, real estate agencies, welfare and recreational associations. The need for action on financing and land acquisition and new housing on neighbourhood-unit principles will then be as clear and accepted, as let us say, the need for combatting inflation (and making it a weapon for postwar stability) is today.

City Planning and our North American Social Heritage



Dr. Carl A. DAWSON,

Professor of Sociology and Chairman of the Dept. of Sociology

City Planning dates back to the earliest established human communities. Although the concept was not precisely defined, some sort of orderly arrangement of human habitations obtained from the time when men began to live in dwellings built by their own hands. More detailed plans for the laying out of thoroughfares, setting up building codes, and creating sanitary facilities have received increasing attention with the advent of the modern metropolis. In dealing with the complexities of the latter, city planning has taken on a new definition. More prevision than detailed plans for city streets, water-mains, comfort stations and low-cost housing ventures is needed in efforts to cope with problems arising out of the growth of the city as a whole. Its traffic problems, requirements for parks and playgrounds, and the array of detailed items essential to the comfort and security of its inhabitants must be seen in relationship to trends in the social and economic structure of the whole metropolis. Thus to the conventional physical arrangements must be added plans based on a growing knowledge of the social and economic relations of the various groups who live under modern means of transportation and communication.

I — *The City as a Growing Changing Whole*

Thus city planning now involves a comprehensive analysis of the city as a growing and changing whole. This may be illustrated in part by reference to certain aspects of the City of Montreal — not just the Municipality of Montreal but Greater Montreal within whose boundaries are to be found those smaller municipalities of Westmount, Outremont, Lachine, and all the others which may be conceived as natural subdivisions in the web of economic and social life of the metropolis of Montreal. While Westmount, for instance, is a separate entity for certain administrative purposes, Westmounters know right well that in addition to their occupations, their lives are bound up in a complicated daily routine that takes them outside the boundaries of historic Westmount. Indeed the growth of the special institutional functions which it performs cannot be understood apart from that colossus known as Greater Montreal. While much more autonomous, as more peripherally placed industrial suburbs are bound to be, Lachine's growth and func-

tions are also a natural outcome of the expansion and differentiation of Montreal. In countless ways its daily routine, population growth, and mode of life are not segmental, but are organic aspects of the metropolis. We are becoming increasingly conscious that our fire hazards, police protection, health and educational facilities, and our religious organization, to mention a few items, are most significantly metropolitan.

The focal point of Greater Montreal is the central business district extending from the Waterfront to Sherbrooke Street, and, approximately, from Saint Lawrence Boulevard to Guy Street. Within this area are to be found the headquarters of the transportation and communication systems. Here too are the head-offices of the major institutions of Greater Montreal. This is the focal point, too, for the specialized functions which Montreal performs for the immediate hinterland in the Saint Lawrence Valley and also for the more remote regions of Canada.

As a city grows more space is required for centrally located financial, commercial and industrial institutions, some of which invade the residential districts to be found on the outer border of the central business district. However, in Montreal there is no precisely determined line of demarcation between the central business and surrounding residential areas, since the latter are constantly subject to encroachment by light industry and various types of commercial services. Such invaded districts, especially where zoning is either spotty or non-existent, become dilapidated, unattractive for better residential purposes and unsanitary. Such areas become congested low rental areas from which the strongest economic elements in their population tend to move. In brief, this is a central fact in the making of slums in all cities including Montreal. The term slum is a severe epithet applied to problem areas surrounding central business districts. In slums are to be found the greatest concentration of poverty, disease, delinquency, crime and vice. To a lesser degree the same phenomena prevail in areas surrounding the outlying larger sub-business centres and industrial constellations. Thus sections of Rosemount and Notre Dame de Grace adjoining business and industrial establishments are subject to the invasion and dilapidation, which make them in some measure socially unadjusted areas. Where areas of industry, commerce, and residence are not more precisely defined and protected the slum-making process comes most clearly to view.

Beyond the area of transition and disorganization which surrounds the central business district in Montreal and all other North American cities lie a succession of areas of residence or areas of residence and industry combined. These may be called *sectors* which extend from the borders of the central slum to the outer periphery of Greater Montreal. One of these sectors is the industrial belt including its subdivisions. Here reference is made to the concentration of industry along the railways, canals and the riverfront. This is the natural location for heavy industry astride railways and waterways. One section of the industrial belt extends westward along the railways and Lachine canal to Lachine. Another section extends eastward along the railway and riverfront to

Montreal East. This section of the industrial belt has a vertical subdivision northward to the Angus Shops which continues in a half-circle around Montreal's central mountain. In the vicinity of these far-flung segments of the industrial belt are to be found the largest proportion of the houses of wage-earners. Obviously, such areas are marked by meagre housing standards. Industrial workers must have low rentals and they must be close to their work on account of long hours and short purses. Housing conditions improve as some of the newer outlying sections of the industrial belt are approached, but an industry's location at the city's periphery is not a guarantee of satisfactory housing in its vicinity.

Extending outward from near the central business district is a non-industrial better residential sector, pie-piece in shape. Its western extension lies north of Sherbrooke Street and extends to Montreal West. Its northward extension includes Outremont and the city of Mount Royal. In contrast to the industrial belt which lies astride the routes of heavy slow moving transportation, the non-industrial sector follows the routes of rapid transportation. This latter sector is occupied by people seeking more expensive residences which have a scenic location and are surrounded by what their occupants term congenial conditions.

A third pie-piece shaped sector with two main divisions lies between the industrial belt and the sector of high-cost residences. This represents an expansion of residential territory for members of the lower middle class. The extended use of the bus and automobile supplementing the tram-car has been instrumental in filling this intermediate territory and also pushing farther outward this part of the city's periphery. The septic tank, the pre-fabricated house and many other modern devices have led to the expansion of this sector deep into the open country where low-priced building sites are numerous. Sectors of this type are occupied by members of the lower middle class whose standards of living fall between those who live close to the industrial belt and those who live on Montreal's scenic upper shelves. In other cities are to be found sites which have similar social and scenic desirability.

These sectors may be further broken down into a series of natural subdivisions, with their particular selections of population and institutions. It should be emphasized strongly that these areas are natural subdivisions of the major sectors of Greater Montreal. Their boundaries do not coincide with those of wards and separate political municipalities that comprise the metropolis. Here and there certain administrative units may have boundaries in part or in their entirety which coincide with natural boundaries formed by such barriers as canals, railroad embankments and large tracts of vacant land. Sometimes racial and ethnic concentrations act as natural lines of demarcation between these natural subdivisions of the city. Such areas are the product of the inevitable play of forces which select and sift urban population groups to a great variety of areas with their own particular functions and statuses. Each has its own age and sex distribution, its own slants on life, types of housing and formal as well as informal arrangements through which groups to be found therein get on in some tolerable fashion with the

main business of living together. In a sense these areas present the class structure of the metropolis, with some overlapping, spread out on its map. In preparing a perspective of the further growth and differentiation of the city into other naturally bounded parts with their own divisions of labour, most intensive research must be undertaken. All such specific area uses of the land, together with the particular requirements and attitudes of the population element selected to them can and must be clearly defined if any plans for the development of Greater Montreal are to be acceptable and workable over extended periods of time. These areas indicate precisely, when they become known by means of research, the diversified natural structure of this or any other city. In large measure the structure of each of these natural areas of the city has not come into existence by design. Nor will this intrinsic structure cease to exist by the efforts of those who seek to change it in accordance with either sinister forms of exploitation or current fashions in city planning. There is a play of forces resulting in certain trends of change which we can know and in accordance with which we can work. Much blueprinting and talk of bringing about profound changes in the ongoing life of Montreal and other cities seem to ignore the natural area factors which are emphasized here. But to ignore them is to make city planning a sort of day-dreaming that brings to both the dreamers and the dreamed about disillusionment on the morrow. May I reiterate that city planners, when they have accomplished something of permanent value, have developed their plans in keeping with the natural organization of the city.

It may be emphasized that the main natural subdivisions of Montreal are now established. The land will continue to be used very much as at present. Only long time changes can be effected and then in keeping with natural lines of development already in sight or to become evident at some future date. It is necessary for the planning board to be on the alert constantly for new trends in land use and function in all parts of the basic differentiated structure of Montreal. The Central Business area, for instance, will continue to perform its present basic role in the life of Greater Montreal. Increased concentration and specialization of certain functions can be expected. These have emerged in much larger cities like New York and Chicago. Notable changes in merchandizing methods have caused Montreal's wholesale subdivision of the Central Business area to shrink. In this vicinity certain changes in obsolescent structures may be planned, making way for other services more able to compete for an economic use of space in such a position. The process of the relocation of office buildings in relation to the expansion of central transportation facilities and changes on Saint Catherine Street continues. Sections of low standard dwellings have given way to the urge for parking-space and room for economically powerful establishments which require central locations. The gradual elimination from the area of both light and heavy industry may be expected to continue in relation to the growth of Greater Montreal until, in the main, only those establishments closely dependent upon this focal point of rapid transportation and communication may be expected to remain

permanently. The stabilization of the main features of the central area may be facilitated by a city plan which proceeds on an understanding of the natural functions of Central Business areas everywhere and of the special exigencies which are intrinsic to any given city.

Furthermore, the pattern of our major industrial establishments has been stabilized in the factory belt sector of the city. Certain tendencies of industry, especially of smaller secondary industrial and commercial establishments to invade and disorganize residential areas is in evidence in all cities. Such establishments may come under zoning regulations which seek to stabilize the functions of a given area over a long period of time, yet sufficiently flexible to permit changes when the need for such is obvious. Guiding industrial establishments into more compact natural locations will cause the elimination of cruder forms of experimentalism in industrial location, but, in the long run this makes for greater industrial efficiency. In addition, such regulation gives a much greater security to residential sections of the city and makes possible the long-term development of social amenities which are usually native to stable residential districts. The disturbance to residential functions which takes place in the territory which becomes the central slum and, in a lesser way, in the vicinity of the belts of heavy industry and the outlying sub-business centres can be greatly reduced by city-planning regulations. The location of such areas of residence make them subject to many forms of industrial and commercial encroachment in Montreal under present conditions.

II.—*The Central Slum and Its Rehabilitation*

The need for more space and cheaper space for industrial and commercial establishments of the expanding centre of the metropolis has led them to push on into the nearby residential streets. This has been a major factor in creating slum areas in all our cities. It is further aided by the factor of obsolescence and the competition of newer and relatively low-cost housing areas to which the more economically favoured and more stable families move. The place of the latter in the developing slum is taken in part by an adverse selection from many parts of the city of population elements whose purse and social habits require the conditions which prevail in lower-rung residential areas.

This transition from residential use to a commercial and industrial use of the land is a long-drawn out process. The gap between land values and rental values, an index of slum conditions, widens. Rebuilding and repairing remain at a minimum. Housing congestion is most evident in the earlier stages of slum development. Such areas become increasingly dilapidated, unsanitary, socially subversive and socially isolated from other sections of the city. Here are to be found the housing conditions which shock well-meaning and philanthropically disposed middle class groups. Their concern has contributed to movements for better housing and for general social amelioration which go back many decades in America, still farther back in England where the forces of industrialization and urbanization first came to the fore.

The pseudo-rationalism and inflated emotionalism of these earlier social crusades are still with us. But in some measure one may note trends towards a more scientific and realistic approach to the problems of city planning in general and the rehabilitation of the slum in particular. The ideology for better housing conditions after the war is of little use unless it sets us at the task of regulating the play of forces which have brought about housing conditions which even the smuggest among us find it very hard to take. The analysis which follows offers some suggestions as to how present slums may be made more tolerable areas of residence and how some of their less desirable characteristics may be prevented in the future.

The pressure for the outward expansion of the central business area has been reduced in recent years. Building regulations, architectural changes, and new construction devices have made it possible for centrally located buildings to move skyward with greatly increased floor space in relation to land space occupied. This has been followed by a drop in the speculative land values in the nearby slum property. Rental values in slum areas have been falling in terms of long-term trends because of the reduction in number of immigrants entering this continent and occupying low rent areas. Because of the changes just mentioned investments in slum property are less valuable. In addition the deflation of slum property values is being caused also by competition from new low-rental housing units farther out along the industrial belts. City planners can if necessary continue to siphon off population and depress land values still more in central slum areas. These factors facilitate the rehabilitation of the slum for residential and other functions. One important obstacle in revamping slum areas has been the high cost of land held for speculative purposes.

This land value trend prepares the way for a more hopeful city-planning attack on the housing situation in the central slum. The first line of attack is a careful survey of this transitional area with a view to its future functions for residence, for business, or open space for parking. To these might be added playing-space where feasible. It may well be found that a portion of the central slum should be set apart for other than residential purposes. But most likely it will be necessary to plan to retain this central slum area chiefly for residential purposes. Some of it will be required in the normal course of development for large apartment buildings with high rentals. Some of it will be needed for moderately large apartment buildings with relatively low rentals. For a long time it will be necessary for housing units similar in general structure to those already in this slum area. In some sections a more sanitary use of space may be brought about by the elimination of alley dwellings and refurbishing the structures which are suitable for residence. The buildings in some sections of the slum according to a moderately low standard housing code will have to be replaced by new houses. In other cities, more advanced than our own in this matter, there are plenty of examples of what can be done wisely and economically.

All this involves the problem of land assemblage for dealing in a comprehensive way with such areas. Groups of land holders may form associations through which they can pool their interest. As a last resort the buildings may be condemned and the land may be taken over by the housing authorities of the Planning Board who would grant a reasonable compensation to the original owners. Some such devices (and on a voluntary basis if at all possible) are required for a full-fledged planning program for the central slum area taken as a whole. A piecemeal approach is sure to be futile in the end. Then too plans for slum areas need to be an integral part of a plan for the whole metropolis.

Much of slum rehabilitation can be brought about by housing authorities without recourse to governmental subsidy. Advances in the mass production of houses and in the availability of low-cost building materials will bring into play more housing ventures which pay their own way. If a large proportion of low-cost housing is not made available by unsubsidized building corporations, the outlook to the future is indeed bleak. Governmental subsidy for demonstration purposes and for building a group of very low cost projects is both desirable and feasible, but building houses by public taxation has marked limitations in our economy and wholesale changes in this regard are not in sight. Changes in wage rates and occupational security are other avenues of approach to the solution of the housing problem without recourse to either public or private philanthropy.

III.—*Organization and Planning Procedure*

The general legal basis for city planning in this province is a Town Planning and Enabling act, passed or about to be passed by the Provincial Government. The next move is for Montreal and the municipalities which comprise Greater Montreal to accept the principles of the enabling legislation and set up a Town Planning Board representing its constituent units officially. This board will consist also of additional members, some of whom would be engineering and architectural experts together with specialists from the various social sciences. The special housing authority would be made up of members of the civic governments.

The whole Planning Board will take stock of the large body of knowledge concerning the details of planning which is now in the possession of Montreal and outlying municipalities. The various specialists on the Board will then indicate what additional research needs be undertaken before the general plan for Greater Montreal can be set forth precisely. Since the City of Montreal has been carrying on detailed studies over a number of years, it is possible that we have now a body of information sufficient for making a general plan. Further research necessary for the working out of certain detailed phases of the Plan might be carried on while the Plan is being put into effect.

In addition to the knowledge possessed by civic governmental departments, other groups such as the Greater Montreal Economic Council have been assembling information concerning industrial locations

and functions. They are attempting to discern industrial and commercial trends. Such studies are very important phases of City Planning. There are many other institutions and associations which have information that can be made available to a City Planning Board when it is established.

With our heritage of individual freedom, however limited it may be in certain directions, we are not likely to accept a City plan imposed upon us in dictatorial fashion. In Montreal as in other cities there are industrial, commercial, professional and political groups whose interest and support is essential to the working out of any City Plan. Part of the Board's major strategy is to ascertain the interests of these groups and give them as full expression as possible in the City Plan. This requires much painstaking effort, skill, and tact on the part of Board representatives and their aids. Newspapers can help greatly in creating support for a city plan but it must be realized that well organized groups in Montreal have attitudes toward a project of this kind which cannot be pushed around by newspaper publicity. Their intelligent support depends chiefly on person to person negotiation with the leaders of a great variety of groups in and about Montreal.

At the outset I stated that we have always had general plans for streets, sanitation and other city services. However, a Master Plan for a city calls for a far greater knowledge of social and economic factors than was present in the older conventional types of planning. The latter reflect not too little of the engineer, perhaps, but certainly far too little of the social scientist. The working out of a Master Plan calls for a "give and take" between various groups which can make or break a Plan. Such an alignment will call for some modification of the cruder and more ruthless forms of individualism. Perhaps a newer and finer expression of individual aims and interests can be achieved in working out a Master Plan for Greater Montreal. I am certain that the well established heritages of individualism and democracy need not be lost in the planning of our cities. In his recent book, *On Living In A Revolution*, Julian Huxley says: "The Tennessee Valley Authority does not impose a plan forcibly from above; it does not even say, 'here is a good plan, take it or leave it'. It helps communities to plan for themselves . . . far from crushing private enterprise, planning here has aided it."¹

1. *Time*, June 19, 1944, p. 41.

The Problem of Planning in Quebec



By EVERETT C. HUGHES,

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When Mr. Bland asked me to give one of a series of lectures on Post-war Housing and Community Planning, to be delivered by economists, architects and engineers, I refused. When, in a second invitation, he said that he did not expect me to talk about housing but about how I supposed people in Quebec would react to planning and housing, I accepted. Not because I have any very good idea of such probable reactions, but because I took his letter to mean that I was expected to say something about the relations of the two major ethnic groups of the province, and how such relations might presumably affect social planning with respect to housing and other matters.

In this paper I shall use the colorless expression, ethnic group, to refer to English, French or other elements of that order. Thus one may avoid the expressions, race and nationality. The word race is likely to introduce biological nonsense into a discussion, while the term, nationality, raises questions of loyalty which are not pertinent to our subject. I take it that I am here as a person interested in French-Canadian people and society. Since the time, thought and effort which I have given to this matter are certainly less than some of you have given it, the specific and peculiar thing I bring to the question is certainly not a more intimate acquaintance than that of many of you; it is perhaps a certain way of looking at the facts. My particular point of vantage is such that I find it quite as easy to speak, with the French-Canadians, of the English problem of Quebec, as to join with the English in worrying and swearing about the French problem of Canada. Indeed, I have two Canadian personalities; an English Canadian one acquired during eleven years among my colleagues and students at McGill University, and a younger, but lively *Canadien* personality gained in "Cantonville" and at Laval University in Quebec. In short, evidently you think I am a fellow who will talk of the possibility of cooperation between French and English. I shall do so, after my fashion.

Now, who do I think you are? An obliging friend has confirmed what I anticipated:—that architects and engineers are numerous among you. Those of you who are, belong to professions which have long been interested in planning, although engineers have perhaps fallen somewhat from grace if judged by their patron saint, Macadam. The architect is a dreaming, impractical kind of fellow who is sometimes suspected of liking plans better than execution, because the former give him freer rein. The engineer is more practical so far as physi-

cal things go, and likes to think he is a very hard-headed fellow; but he, too, has his dreams from which financially-minded company directors rudely awaken him. He wakes up swearing; the architect takes it out in painting, poetry, and fencing. Both are a little impatient of the vagaries of human nature; perhaps more so than the rest of us, for having done so well at bending steel and cutting stone to their wills, they are especially thwarted to find that man — who looks so pliable — is not only the most resistant of all materials but is apparently unpredictable in his resistance. Who among us, after all, except the heartier of the practical politicians and the lustier of the tellers of yarns, is not impatient of man's apparent irrationalities — his own generally, but not always, excepted. All of this I say, not to attack those thwarted planners, the engineers and architects, but to introduce — at their expense — the main theme of my talk. It is simply that human nature is always a bother to a man with a plan. The most bothersome human nature of all is that of people of another ethnic group than our own. For, on all grounds of reason, it would seem that a difference of language and of certain customs and sentiments should not interfere with reasonable plans to satisfy more effectively certain basic human wants, such as security, health, good housing, and freedom.

But a caution must be introduced at once when we start to talk of basic human wants. The comparative anthropologists have for a long time worried their heads over the problem of universal, hence presumably basic, human wants. They have drawn up several lists of them, which agree more or less. But the wants in any such list are abstract; so abstract that they show but little resemblance to what most of us strive for. Nutrition chemists have likewise drawn up lists of the amounts and kinds of food required by the human organism. These, too, are basic wants; so basic that they can be expressed in chemical formulae. But housewives do not yet go to the store and ask for what they want in chemical formulae. They ask for rice or spaghetti or beef which they then cook and garnish according to the general custom of their people and the particular taste of their husbands. In recent studies undertaken by the United States Department of Agriculture, it has been discovered that people of two ethnic stocks may live side by side in the same county for a century, speaking eventually the same language, cooperating in public affairs and sharing complete loyalty to their community, state and nation — and yet continue to eat different foods and to think, each of them, that the food of the other group is rather disgusting. The reason for undertaking these studies of diet was a suspicion that the generation or so of teaching of domestic science in schools and clubs and of issuing bulletins on nutrition had had but little effect on what farmers eat. The dietary instruction and planning had, in fact, been based on the chemistry of food, with little attention to the customs of people. The Department of Agriculture now hopes to change its tactics. The present diet of any given group is to be taken as the starting point, its values are to be emphasized, and changes recommended within the limits of existing likes and dislikes, — recognizing, in addition, that food has other functions

than keeping the body alive. For instance, you can catch a man with cake and keep him — in a German community — by skill in making blood sausage.

The basic nutritional wants of man and even certain conditions necessary to his social existence may perhaps be discovered by experiment in a laboratory or by comparative study of social and economic systems. But one cannot deduce from these general principles, the food habits, the housing demands, or — more generally — the social customs or economic behavior of any given group of people. The only sure guide to these things — the concrete wants of a people — is study of that people. Planning means, I take it, the establishing of some sort of more effective connection between the concrete wants, expressed in the culture of a people, and the more abstractly conceived basic wants.

This distinction between abstractly conceived wants and the wants of which people are conscious and which guide them in their daily struggles and efforts is particularly pertinent in a community with an ethnic division, in a community with minorities. Generally speaking, people are more tolerant of the strange ways of distant peoples than of the local, self-conscious "minorities" with whom they have to live.

Now Quebec is a region with minorities in it. Minorities are of several kinds. One is a group of people, who like the American Negro or the South African Native, suffer each and everyone from restrictions upon their liberty of action and who have, by some series of circumstances, come to resent those restrictions. This is a status minority. Its members ask, not that they be allowed to be different but that they may be given the opportunity to be like their fellow-citizens.

Another kind of minority may be called a *diaspora*; people who, scattered in various regions and countries, seek to maintain their identity and some peculiar ways and beliefs without, for that reason, wishing to be deprived of the ordinary rights of citizens in the countries where they live.

A third kind of minority — especially common on this continent — consists of immigrants who have moved into a new country already populated and with its government, laws, languages, and social institutions already established. The immigrant minority is ordinarily thought of as something in course of disappearing by assimilation of its members into the general population and prevailing culture of the receiving country. This is generally the case, though various circumstances may slow up the process. Canada, like the United States, is a country of immigration. We are accustomed to the immigrant, and we have developed a way of thinking about him. Part of that way of thinking is the assumption that any and all cultural minorities are or should be temporary; that they should disappear in a generation or two. This assumption carries over into our attitude towards that kind of minority—last in my list but the historic prototype of all — the "charter-member" territorial cultural minority, of which the two leading examples in North America are the Spanish-speaking peoples of the

Southwestern United States and the French-speaking peoples of eastern Canada.

This last kind of minority — the charter-members of a region — is the most stubborn of all, in the eyes of their more numerous neighbors. It consists of the people who settled a region, gave it its stamp and there developed a system of life and institutions. They become a minority, not by themselves migrating, but by virtue of invasion or conquest which brings their territory under the sway of other people who differ from them in culture and, at least in the beginning, in political loyalties. Such a minority combines, in its mentality, all the pride of being first settlers — such as one finds in United Empire Loyalists, Daughters of the American Revolution, and the First Families of Virginia — with the sensitive defensiveness of people whose way of life is threatened by usurping strangers. The French-Canadians are a minority of this kind.

As is generally the case in such a situation, it is the newer people — here the English — who are the agents of social change. In this the situation is like that of our Southern States, which had stabilized their social life, culture and their economy about the plantation system, only to find that changes — many of them undoubtedly inevitable and necessary — are constantly introduced by the agency of the Yankee. Of course, in the Southern States, there is no difference of language and religion to complicate matters. But that makes the essential similarity of the situation the more striking; for the attitude of the Southern people toward the larger economic enterprises undertaken in their midst by Northerners and toward government attempts to plan for the contingencies of the newer urban and industrial life in the South is very like the attitude of many French-Canadians toward similar changes of which English-speaking Protestants are the agents. Our northern attitude to Southern people is also much like that of English people here to French-Canadians. Incidentally, the situations are similar even in the appearance now and then of peculiar political alliances between the financial and industrial leaders of the north with defenders of the Southern social system to oppose the efforts of government and labor. Such alliances have not been unknown in Quebec.

But to return to our main theme. The English have undertaken the larger, more world-shaking enterprises in Quebec, those which by first mobilizing large amounts of capital have set people in motion. They have built the dams that bring the factories that bring the people from the farms to form new towns and cities and to make old towns into new and bigger ones. Where regions have been physically transformed and the lives and ways of French-Canadian people disturbed and re-oriented, English enterprise, technical knowledge and capital have done it. The English have brought prosperity — but also depressions. The French-Canadians are, as French human geographers would say, the passive element in the human geography of this region. The English are the active, episodic, catastrophic element. What the Yankee is to the American South; the Anglo, to the Latin American countries; what the Huguenot was in the north of France in his day, and the

Protestant Prussian in the Catholic Rhineland, this the English—Canadian, American, and Old Country—have been in Quebec. We are the eternal “carpet-baggers”, upsetting local arrangements for the good of the natives and for our own profit. We are the Calvinists who give jobs to people who need them but don’t always want them; we are the people of whom Adam Smith wrote his political economy, the people whose wants are unlimited, who work for money and profits,—and are eternally astonished and often angered at the misguided people who have not yet arrived at our own blessed state of material dissatisfaction.

It is well to remember that there is no case on record of a people who were publicly and collectively grateful to those who brought them an industrial revolution, even though the revolution had the effect—by design or by accident—of providing work for excess population or of raising the material standard of living. Apparently it is not in the nature of human groups—although it may be that of individuals—to be grateful even for unmixed blessings. And an industrial revolution is never an unmixed blessing. On the other hand, it seems to be human to expect gratitude. I have noted in the voices of English industrial and financial people in this province in recent years a certain injured air. When labor organizes or goes on strike, when there is talk of taxing industrial plants or when it is proposed that utilities should be publicly owned, English industrial people are all too prone to end their bitter comments with the phrase, “after all we have done for them,” or “where would they have been without us.” It is easy to turn from this injured frame of mind to belief in some sinister cabal against the country.

Ethnic minorities have always seemed a little unreasonable to the members of a majority or dominant group. For, in such situations there is added to the general blindness to the sentiments and peculiar wants of another people, the special inability of large and industrially progressive peoples to understand the sentiments of members of smaller and more traditionally minded groups. The people of the United States, many of them at least, have never been able to understand that it is something more than some peculiar stubbornness that makes you Canadians want to remain separate from us who speak about the same language, live under the same basic political institutions, belong to the same kinds of churches and clubs and are part of the same continental economy. Your corner lot on the aerial cross-roads of the world would round out our property so nicely, and after all, you are good fellows whom we would love to let in on a good thing. That your love for your country should be as natural to you as that of members of a nation of a hundred and thirty million is something people of the bigger nation do not quite believe.

Likewise it is hard for the members of an industrially progressive group to believe that the attachment of an industrially conservative minority to their culture and way of life is as natural and deep-rooted as any. The resistance of such a minority to majority ideas and plans

is likely to be looked upon as perverse opposition to what anyone can see is for the public good. One of the effects of the situation is that members of both ethnic groups make ethnic issues of matters which are not necessarily so. But before going further into that point, let me note another order of things which contributes to the same result.

I have yet to learn of two ethnic groups in the same region, both of them having exactly or essentially the same social structure, the same proportions of their populations in the various occupations and possessing — in about the same proportions — the same kinds of property. This is not astonishing, when one considers that the reason why ethnic groups exist is that they have not the same history and experience. We are ordinarily so occupied with the more apparent differences of culture — such as those of language and religion — that we overlook the differences of social and economic organization. This is especially so where, as in Quebec, both ethnic groups share the same basic economic and legal institutions and are both heirs to the general tradition of western Europe. The very fact that two languages continue to exist indicates two social groups in each of which communication goes on somewhat independently of the other; and in these two worlds of communication and experience different ambitions and view points are fostered, and transmitted from generation to generation.

But let us document the facts. In the earlier days of this province, as has been so well shown by D. G. Creighton in his *The Commercial Empire of the St. Lawrence*, the relations between the French and English were complicated by the fact that the English were merchants and possessed of the mercantile philosophy, while the French were not. That day has passed. The main body of English people of the province, except for certain local variations probably destined to disappear, are now in the civil service of industry and finance, to use a phrase introduced by Sidney and Beatrice Webb. By that phrase they meant all that body of people who work in industrial and financial concerns above the level of the common workmen and below the level of those who partake in significant measure in the entrepreneurial and policy-making functions. They are the people who, in short, do work that is oriented toward management but who work for wages or salaries. Such people form an increasing proportion of the working population in western industrial countries. People of professional status find themselves in increasing number and proportion in this situation, as T. H. Marshall has shown for England and as the occupational census shows clearly for the United States.

The number of English people who are entrepreneurs in their own right in this province is relatively small, in spite of the fact that the larger enterprises are in their hands. The proportion in the civil service of industry and finance is inordinately large. In fact, in many industries and even in some towns, the number of English people in this situation is absolutely greater than the number of them in the ranks of labor, which is of course a very great distortion of the usual situation, as it would be found, let us say, in England.

The English who are not directly in the civil service of industry are pretty heavily concentrated in those occupations which perform services for those who are. There are, of course, still fairly large numbers of English people among the ranks of workingmen, and some who are smaller entrepreneurs. But it is the group which I have called the "civil service" of industry and finance which gives the stamp to the English mentality of the province, so far as economic interests are concerned. This is perhaps more so outside Montreal than in, except for parts of the Eastern townships.

The French, on the other hand, are heavily concentrated in farming, industrial labor, and the smaller businesses as well as in governmental civil service and the civil service of industry and finance. In the latter, they are concentrated in positions of relatively less influence than those occupied by the English. The French-Canadian in the white-collar ranks of large concerns is much more likely to have numerous friends and kin among farmers, small businessmen and among industrial workers of the lower ranks than is the English person in similar position. He is much less likely to see above him members of his kin or even of his ethnic group.

It is, furthermore, the French in this province who are the entrepreneurs in the historical sense of that term — the people who risk their money in affairs which they themselves manage and in small properties which they occupy for residence or business or which they let out to others. Chambers of Commerce and Leagues of Proprietors, with heavily over-lapping memberships and leaderships, are among their most numerous and active rallying points. Strongly local in interests, they defend stoutly the advantages of the towns or districts or even the streets in which they have their various "projets" and pieces of property.

I mention the various projects and pieces of property because it is a marked feature of the French-Canadian small entrepreneur that he does have a number of small affairs and a number of pieces of property. In this he differs markedly from the English person of the white-collar class who characteristically lives from an income from a single source and by a single specialized skill.

While there has not been made, so far as I know, any thorough-going study of the owning of property by French and English in this province, there is every reason to believe that the facts correspond somewhat to what one might expect from the occupational structures of the two groups. In Cantonville, it was quite clear that the English civil servants of industry owned relatively little real property; what they did own was — in spite of conventional economic definitions — consumption goods. That is, they owned the houses they lived in, and thus made sure of a good place to live and documented their social place in the community. By and large, that is probably the situation in other industrial towns, and in Montreal and Quebec City. On the other hand, owner occupancy is relatively much less frequent in Quebec towns and cities than in Ontario and other North American towns

and cities of comparable size and character. The indications are that the French-Canadian is relatively less concerned with the ambition to own his own home — which is incidentally a very unstable kind of ownership, rarely outlasting that part of a family's career in which the father's earning capacity is at its greatest and in which the children's presence at home requires the maximum of space. The function of the ownership of real property for the French Canadian is to produce revenue as well as to provide a family residence. It is an old-age pension, not a place to live in when one is at his full power. I suspect that investigation would show that ownership among the French is much more likely to be prolonged by inheritance and by keeping a "succession" alive in the hands of a notary than is the case, class for class, of English owned real property. One might say that, to the French-Canadian middle class and even to many of the working-class, real property is looked upon with the eye of the entrepreneur and of the *rentier*. The law of real property is the same for French and English; they may buy property in the same market. It does not follow that the social functions of real property are the same for the two ethnic groups.

The special reference of this to social planning is the same as was suggested in my remarks about nutrition programs. French people may have the same basic economic wants, abstractly conceived, as do English people. But one should be very shy of deducing from this fact—if it is one — any conclusions concerning reactions to housing programs.

I would imagine that, because of the differences in the distribution of occupations and of property which I have indicated, the French might be a little suspicious of planning projects on the large scale — especially if conceived in a way likely to injure the importance of dwelling properties as a revenue producing investment.

I have been making two essential points, to wit: 1) that, while the French and English live from one and the same economy in this province, their places in it are not distributed in the same way. Each group has its own occupational and social structure. 2) The functions and meaning for the individual, family and community — of certain kinds of property and of certain financial interests are often not the same for the French as for the English. The import of these two propositions is that French reaction to certain plans and proposals might be expected to be different from English reaction, even if there were no other ground for tension between the two elements of the population. Thus, while there is no inherent reason why any economic or social planning problem should be an ethnic issue, almost any such matter would be likely to become so.

Need I give you examples of issues which have been given an ethnic turn? I have frequently heard English people in this province speak of the movement for public ownership and distribution of electrical power as though it were a sort of nationalist French-Canadian plot. That it is a plank in the platform of certain distinctly French-Canadian social and political movements is certainly not to be denied. It is also true that many French-Canadians who propose public ownership speak

specifically of the English control of such resources and talk of returning them to their rightful owners, the people — whom they think of as being essentially the French-Canadians. In this case, the representatives of the utility companies and their opponents agree on the one point that this matter is an ethnic issue. And to the extent that they think so, it is one. But it does not follow that it is inherently an ethnic issue. After all, the French-Canadians have not been notorious for their proposals to abolish private property, while the province of Ontario — which can hardly be said to be dominated by French-Canadians — made electrical power a public matter a good many years ago. There was a time when a good deal of the discussion of old age pensions in the province was done in ethnic terms. And who among us has not heard talk about “our” money — meaning the school tax collected from corporations and put into the neutral fund—being used to educate “their” too numerous children, — a complaint often mingled, without any sense of inconsistency, with talk about the alleged low level of French-Canadian education. The injection of the ethnic division into matters of labor — on both sides — is likewise notorious. My favorite example is the talk I heard of “foreign agitators” in certain industrial communities. The people talking were Englishmen and Americans; the agitators were French-Canadians from thirty miles away. Likewise, to many French-Canadians the “foreign agitator” is often a Canadian-English or French — whose foreignness may consist only in his representation of a nation-wide or international union. In all of these cases, the difference in economic position reinforces the historic separation of the two groups. Once put into an ethnic frame, it is very hard to see an issue free of this perspective.

It is not likely that the issues which might arise in connection with planning in this province can be prevented from being so discussed. But there are different ways of taking ethnic differences into account. One way is for each group to assume that it knows all about the other, and to ascribe to each other a certain mentality and a selfish defense of certain interests. Another way is suggested, I hope, by what I have said; this way is for the people who have to make and execute plans for the social welfare of the people of this province to pursue the search for an understanding of the situation of the people of both ethnic groups. This understanding, I submit, cannot be got by the usual “bonne entente” method — which is that of getting together from both ethnic groups people who almost never have any considerable following among their respective people, and who will — more than likely — pass their time together in mutual compliments and then in complaint that unfortunately some members of their groups are not so broad-minded as themselves. After this pleasant pastime, each goes his way thinking that the other group is about to revolt against its leaders and reform. The understanding of which I speak is rather that to be gained by social investigation, which will probably — in the long run — be undertaken within each group by its own members. Armed with fundamental knowledge of social and economic organization and trends, of the meaning of things within each group, representatives of the two groups might understand

each other even though differing in point of view. In fact, I am of the opinion that, valuable and pleasant as may be the relations between sympathetic individuals of the two elements, the more essential thing is that leaders of the two groups know the same facts. And the facts which it is necessary that they know, are not merely economic and demographic; they are also the more subtle human facts concerning sentiments and the meaning of things.

Planning for Health and Recreation



By Dr. A. S. LAMB, B.P.E., M.D., C.M.,

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To be effective, any consideration which is given to planning for the future, whether it be municipal, provincial or national, should give priority to the health and welfare of our citizens. In spite of the colossal expenditures from day to day, Canada has been and still is, negligent and indifferent toward her most valuable asset, the physical and mental fitness of her people. A quarter of a million of our citizens are the victims of either physical, mental, economic or moral pathology.

I would like, therefore, to submit some observations upon the following questions:—

- (a) What is the status of our human resources?
- (b) What is our conception of health and fitness?
- (c) What is our conception of recreation?
- (d) Are our facilities and programmes adequate?
- (e) What facilities are needed?
- (f) Where should the emphasis be placed?

What is the Status of our Human Resources?

A few days ago our newspapers carried some comments on an article written by Dr. J. J. Heagerty, Director of Public Health Services, Department of Pensions and National Health, which appears in the current issue of the Canadian Journal of Public Health. The newspapers featured a statement from the Journal which said "The state of health of the people of Canada during 1942 might be termed excellent".

As I feel that this statement might be misunderstood, particularly in this province, I consider it a responsibility, admittedly unpleasant, to study the situation more carefully. The figures I shall quote are mostly from the Dominion Bureau of Vital Statistics. Other observations are from the most reliable sources available.

Every day 50,000 are absent from work in industry on account of illness, and 2%, or 230,000 are every day unable to carry on their usual work because of illness. Well over 1,000,000 were admitted to hospitals in 1940. 25% of our people are medically indigent. Approximately 50% are bordering upon, or actually are undernourished. The direct cost of sickness in Canada is approximately \$300,000,000 a year. We could save half of this cost if the known health laws were observed.

The rigors of war demand total fitness — many lives will be lost for lack of it and many are cracking under the strains, physically or mentally. In the national inventory of our man-power, up to October 1941, it was shown that 44% were rejected from Class A as unfit for military service. In the Montreal area, 55% were rejected. In the Quebec City area, over 60% were rejected. Is this excellent?

The principal causes for down-grading of recruits, either when they present themselves for enlistment or during basic training, are:—

- (a) General physical depreciation, probably in great part due to poor nutrition.
- (b) Psychoneurotic or neurotic manifestations.
- (c) Eyesight.
- (d) Foot problems.

A report tabled in Ottawa, December 1942, showed that 100,249 men of the Armed Forces had up to that date either deserted or had been discharged to civil life as unfit for further service. Could that be considered excellent?

There are more patients in our 60 mental hospitals than all other hospitals put together. From 1931 to 1941 there was an increase of 42.4% in the number of patients in our mental hospitals. 10% of our population either have been, or will be, incapacitated by mental illness. There were nearly 8,000 new admissions in 1941. Could that be considered excellent?

According to an article in a recent journal, Lt.Col. Williams, Chief of the Division of Venereal Disease Control of the Department of Pensions and National Health, says there are 200,000 persons working in Canada to-day who have syphilis and are unaware of it. That's not excellent either.

We lost almost 6,000 lives from tuberculosis, a preventable disease, in 1942. The national death rate in 1942 was 51.5 per 100,000. In Ontario it was 28.9%, Saskatchewan 28.2% but in Quebec it was 80.2%. Why should one person die from tuberculosis every 3¼ hours in this province? For its size, Montreal is the worst city on the continent for deaths from this preventable but dread disease.

Infant mortality is the most sensitive index of the progress of a nation and yet the Canada Year Book for 1942 shows that there are eleven nations with better records than ours. Our rate is 19% higher than the U.S.A.

The rate per 1,000 live births for 1942 was:—

Canada	54
British Columbia	35
Alberta	38
Quebec	70

66,500 Canadians were killed or died from wounds in the four years 1914-1918. It was a national tragedy, BUT, in the five years 1936-1940, we lost 105,555 babies — 32,050 of them stillborn. 42% of all babies lost in these five years were in this province.

Let us look at the situation from 1936-1940. If the New Zealand infant mortality rate of 30 deaths per 1,000 live births had been maintained in Canada, we would, in these five years, have saved the lives of 39,190 babies. This of course, does not take into account the 32,050 babies who were stillborn.

In 1937, Canada stood twenty-first in a list of twenty-eight leading countries of the world in the maternal mortality rates, but incomplete figures show that our position has been greatly improved in recent years. 70% of all maternal deaths are due to conditions which are preventable or amenable to treatment. Each year 20,000 mothers are not attended by doctors or nurses, and 60,000 each year do not receive anti-natal care. On the average we lost in 1940:—

1 mother every 9 hours.
 47 children under 5 years every day.
 38 “ “ “ “ “ “
 38 “ stillborn, every day.

Much of this loss is avoidable, but we allow this stupid and unpardonable neglect to go on and on.

We have just concluded an “Immunization Week” in Montreal. Why did we need it?

In 1942 we lost:

	Canada	Ontario	33%	Quebec	29%
Typhoid	108	14	13%	73	67%
Diphtheria	256	14	5%	123	48%
Scarlet Fever	128	31	24%	50	39%
Whooping Cough	559	62	11%	325	58%
	<hr/> 1051	<hr/> 121	<hr/> 11%	<hr/> 571	<hr/> 54%

Let us hope it will not be long before pasteurization of milk will be as essential as the proper filtration and chlorination of drinking water.

We must be careful not to hand out too many bouquets to the Province of Ontario and you should know that in 1942, Ontario had more than three times as many homicides and suicides than we had in Quebec. (405-126).

The convictions for juvenile delinquency per 100,000 of the population for all Canada showed an increase from 67 in 1939 to 101 in 1942. Quebec was the highest with 120.

Those adjudged delinquent in 1939 — 7,613
 “ “ “ “ 1942 — 11,758, increase of 54%
 “ “ “ for minor offences increased 86.5%
 “ “ “ “ major “ “ 38%

This rapidly rising barometer of social evil reveals our shortcomings as well as those of the offenders against the law. All of us have offended against law and order. We have all stolen, but most of us have been lucky enough not to be caught. If anyone contends that he has not

stolen, then either he is not normal, or he is deviating from the straight line called truth. This is not a new problem, but it has been aggravated by the abnormal conditions under which many children are now living. The broken home, the weakening of family morale, the absence of the mother or father, the philosophy of living for today, bad housing, the contempt for observance of the law, the shortage of good leadership, the lack of organized and supervised recreation are some of the contributing factors. Children need security, affection, self-esteem, a sense of belonging, social approval, an opportunity for achievement, an understanding companionship and more friendly guidance.

You can interrupt the improvement of public works and go back a few years later to start again about where you left off, but if you interrupt decent care for children, you cannot hope to find them in anything like the condition in which they were left. They will be grown up in the wrong way. They will be enemies and liabilities of their communities rather than friends and assets.

These physical and mental aspects of our man power present a dreary picture and, of course, there is also an economic basis for much of the distress I have cited. Time does not permit a further analysis, but may I remind you that 56% of those in our jails and similar institutions are 30 years of age and younger, and in our charitable institutions 36,000 or over 69% are under 20 years of age. This certainly does not suggest excellent moral and economic health.

While granting full credit for the remarkable advances which have been made in recent years, it seems that most of us, in spite of the shocking facts I have quoted, are content in our smug complacency and blind optimism to play the ostrich.

We know a great many other facts concerning the state of the nation's health and we know also, that no matter how much we spend in the development of our natural resources, it will be of no avail if we fail to protect and care for our human resources. If our man power fails, then all else fails.

What is our conception of health and fitness?

It is almost universally the case that we do not fully appreciate the value of health until we lose it. The late Dr. Grant Fleming defined health as "a condition wherein all parts of the body function harmoniously at a maximum of efficiency". Most of our knowledge of health is secured through the home, the radio, the press, addresses or special literature. "Health facts you should know" — "Restore the vigour of your youth" — "Eat our body building health foods" — "Use our anti-septic, it cures everything from bald heads to bunions" — "How to keep healthy in ten lessons" — "Our pills help the forgotten half of digestion which takes place below the belt". These and other raucous rantings over the radio, with their fallacious and ridiculous claims, would lead one to imagine that anyone could go to the store and buy a yard or a pound of health. We have health concepts and pursuits, health projects, charts, graphs and inventories. We have health books, we recite health

facts and focus attention on so many non-essentials that we are reminded of Mr. Chesterton's statement that "of all human things, the search for health is the most unhealthy". Our measures in health education must have ideals and objectives which will safeguard us from extreme statements and false concepts, so often the cause of increasing the numbers of our neurasthenics, faddists and dyspeptics. In education there is often too much emphasis upon health and not enough upon living.

So often our conception of health is one of strength, skill, endurance, and speed. Activity as such is not necessarily healthful. We may have a physically perfect moron or a physically superb moral degenerate. Society demands more than strength and sweat, more than speed and skill, it demands of man a normal relationship with his fellows and his environment. His habits, his reactions and his attitudes are of far greater consequence to society than any special physical skill that he might possess.

Again, a man may be organically sound, he may have a perfectly healthy body in the sense that all his organs function normally but nevertheless, he may be functionally unsound and unhealthy. In other words, the machine may not be able to meet the stresses and strains of everyday living. This failure may be physical, or, as so frequently happens, it may be mental. The inability to withstand the disappointments and frustrations of life so often lead to psycho-somatic disorders. The breaking point to which we are all susceptible may come when we least expect it.

We should think of health and fitness from several points of view, physical, organic, functional and temperamental. We are dealing with a total personality in which the seeds of total body fitness are sown in the very early years of childhood. Failure to realize this important fact will inevitably present its chain of dire consequences in the later years of life. It will thus be seen that any conception of health which considers the physical, mental, social or moral factors by themselves is totally inadequate. They are inseparable. The body, the machine which transports us from place to place is a living mechanism with a highly developed sensitive nervous system in control — it has vision, experience, intellect, memory and complex emotional reactions to itself and the world in which it moves.

There are no compartments of health. All should contribute toward an adjusted personality with harmonious, dynamic, cheerful total body health. In our planning therefore, it is essential that we have ideals, objectives, interests and motives to inspire habits of healthful living to the full, according to the capacity of each individual — a joyous, optimistic, wholesome, happy relationship to ourselves as well as to our fellow beings.

What is our conception of recreation?

Recreation — the spirit of play — is essentially basic and fundamental in growth and life. From the religious festivals in honour of Zeus and "the playing fields of Eton" down through the modern era,

a discriminating insight has woven into the fabric of our recreative lives, an understanding of that which is fair, that which is good. To "play the game" is no hollow and meaningless platitude, but is charged with a depth and sincerity of feeling which far transcends the baser ends of gain and profit. Its perpetuation is intimately related to the informal recreative and play activities which form such an important aspect in the education of our children and it forms an integral phase of character in all walks of life.

Organized recreation may be classified into three groups; commercialized amusements, competitive athletics and a pure play or social recreative programme for children and adults.

Commercialized amusements, some of which might, of course, have much educational value, are such things as the theatre, moving pictures, radio, pool rooms, bowling alleys, dance halls and the like. There are unlimited varieties to the forms they may assume. The chief objective, in most cases, is to plan the event so that it will be attractive to the public and the box office is the guide.

In the field of competitive athletics, we are concerned with two types, one, a commercial understanding by a professional promoter who uses athletics as his appeal to the public, and the other, the amateur athletic organization which conducts contests, the revenue from which is (or should be), devoted to the further promotion of similar activities. On the one hand the activity is openly an athletic spectacle for cash, and on the other, it is (or should be), for the sake of the activity itself.

The third phase of organized recreation is that which concerns the development of a programme of play and social recreation for all children and adults, a programme which, if well organized, offers a normal outlet for the expression of the natural play instincts of the individual. It would be incorrect to look on recreation as assuming only a physical form; surely there are equally important phases which concern the mental, moral and social aspects of our natures. It may be the setting sun, trees, birds, flowers, drama, arts, crafts, music or literature, but the principles involved are just the same.

The values of recreation are many and this is true for all ages. There is perhaps no force so powerful in removing racial and religious prejudices, in bridging language problems, in developing co-operation and one's social nature. Where can comradeship, friendship and the spirit of loyalty be so easily and so thoroughly fostered? One cannot impose honesty, or justice, or loyalty, any more than any other attribute of character. They must grow from within, and recreation offers innumerable opportunities for the development of these desirable and essential characteristics.

These things do not just happen, however. Play and recreation are double-edged swords. Skilled supervision and wise leadership are essential. Society should foster the play spirit and the facilities and programmes should be made more attractive than vice. Recreation is a physical, moral and social force; it is the birth-right of our children; it is a regenerating and uplifting force in the community. The right

kinds of play build strong bodies and healthy minds, the wrong kinds lead to crime, disease and vice. The leader or supervisor can make of it whatever he chooses.

Highly specialized competitive activities need not concern us greatly in our planning — the professional promoters will look after that. What should concern us however, is the sham and hypocrisy of so-called amateur athletics, and the rapidly increasing number of gladiatorial, gory-minded, hysterical people who patronize some of our present day professional sporting activities.

Are our facilities and programmes adequate?

A simple answer to this question is "no", particularly in view of some of the figures already quoted, but may I give you a few examples in support of this categorical answer.

Experience has shown that for every death from tuberculosis, three beds are required for the care of other cases. Taking into consideration the beds which are now available and the death rates from tuberculosis, the Canadian Tuberculosis Association states that of the 4250 beds needed in Canada 63.6% of them are required in Quebec. Ontario would need 6.7%. Dr. LeSalle Laberge, Chief of the Tuberculosis Division of the Provincial Ministry of Health said, about a month ago, that between 15,000 and 20,000 Quebec homes were affected by tuberculosis.

Dr. Jules Archambault, Chief of the Division of Venereal Disease of the Provincial Ministry of Health, said recently that there are "no fewer than 120,000 syphilitics in this Province".

The National Committee on Mental Hygiene has stated that, owing to the over-crowded condition of our mental hospitals, 17,400 additional beds are needed. 35% of the 100,000 odd men discharged from our combat services were for neuro-psychiatric reasons.

There are 41,680 children attending 82 schools under the Protestant Central Board. 52 of them have gymnasias and there are 48 full time teachers of physical education holding Specialists' Certificates.

Under the Catholic Board of School Commissioners there are 103,183 children attending 227 schools, but only two of them have gymnasias.

A report of the City Health Department (Sept. 24/41) showed that of 70,000 school children medically examined, 52.2% had physical defects.

There are 51 Districts Health Units in 63 rural counties in this Province. These excellently functioning organizations appear to be the solution for many of the health problems of Quebec. The Provincial and Municipal Health Departments and the many capable and conscientious officers are doing splendid work under discouraging conditions. More money and a larger personnel are necessary if they are to continue their up-hill fight. The publication "Health on the March" quotes the following :—

Preventive expenditures per capita — B.C. \$0.60, Que. \$0.28
All health expenditures per capita — B.C. \$3.28, Que. \$1.26

Canada is now spending approximately \$11,000,000 a day for killing men — for death and destruction — and yet we as a nation would hesitate to spend that amount per year for the prevention of disease and the promotion of health. When will we learn that it is more economical to put a fence at the top of the cliff than have an ambulance at the bottom?

What facilities do communities need so that adequate programmes can be carried on?

A number of needs have already been suggested. Keeping our conception of health and the oneness of the body in mind, we must come to the conclusion that no programme of health can be adequate without provision for physical activity and recreation. Similarly, no isolated programme of physical activity and recreation can be adequate without consideration of the broader aspects of health and preventive medicine. We likewise cannot ignore the ordinary laws of hygiene and sanitation which offer protection through the inspection of our food and water supplies, sewage and garbage disposal, heating, lighting, quarantine, adequate housing by-laws and all the recognized means of safeguarding the population from the spreading of communicable diseases.

An efficiently functioning Municipal Health Department, or for the rural areas, a mobile District Health Unit, could do much to safeguard the health of the community. The following should be *compulsory*: periodic medical examination, correction of defects, pre-marital examinations, inoculation or vaccination against communicable diseases, pasteurization of milk, hospitalization of infections tubercular cases, effective control of venereal disease, pre-natal and post-natal clinics, decent housing, improved nutrition and efficient sanitation. Education of the public through discussion groups, the press and the radio, should parallel these requirements, for public opinion lags far behind scientific knowledge.

Schools are financed with your money and mine. By law, we have made it compulsory for all children to have education, but we have not done the same for health, except to a very limited degree. Instruction in health matters is given in certain elementary grades, but it is fragmentary and factual. Approximately 60% of the high school students in the Protestant schools go through the four years with no instruction at all in health. I am not aware of the instruction given in the Catholic Schools.

Students in our schools should be not only concerned with health knowledge and health practices, but they should also develop a sense of responsibility in identifying their own health problems and also the problems of their homes, schools and communities. Surely it is not too much to expect high school students to know something of the common cold, tuberculosis, smallpox, typhoid fever, venereal disease, or whooping coughs. Whether such instruction is given by the school medical officer, the nurse, the grade teacher or the teacher of physical education will depend upon a number of factors.

There should be a gymnasium in every school and every physically able child should have a period of physical activity each day appropriate to his needs. Recommendations for all grades are detailed in a special report prepared for the Hepburn Survey.

Mention has been made of the excellent provisions that are provided by the Protestant Schools in this area. William James said "We live forward and understand backwards", and I am inclined to the opinion that our future schools will serve a multiple use, much more so than is the case to-day. Why should they not be designed for the use of the family unit, acting both as schools and community centres to care for discussion clubs, social functions, lectures, library and literary groups, music, dramatics, arts and crafts? I must not go any further suggesting what architects should do, but it has always seemed a sound principle for the person who is designing a building to know something of its uses and the administrative problems involved in its operation. The person who is responsible for supervising activity in a gymnasium will think less of a Corinthian entablature than he will of the children with wet feet who fall down a stairway from the shower room to the locker room. The usefulness of such buildings would seem to be much more important than the facade.

The Community Centre as an active force in the community is on the way. Witness the present developments in this city; Notre Dame de Grace with 54 agencies cooperating; Park Extension 25 agencies; Rosemount 28 agencies, and it will not be long before centres are established in Maisonneuve, Point St. Charles and Verdun.

Other facilities for health and recreation for which provision should be made are:

Park areas, camping and hiking facilities.

Playgrounds and playfields.

Home and Community Gardens;

Indoor recreation facilities;

Facilities for winter sports

Wading pools;

Swimming pools or beaches.

Recreative facilities for Industries;

More Health Units or Clinics of easy access.

Increased accommodation for the tubercular and the mentally sick has been mentioned.

A number of pamphlets issued by the National Recreation Association, 315 Fourth Ave., New York City, will be found useful concerning accepted standards on the basis of population, layout of facilities.

Where should the emphasis be placed and what might we expect as a result?

The Right Honorable Ernest Brown, former Minister of Health in Great Britain, said in a recent article: "When the forces of evil are defeated, there will be new battles to be fought. If we are to win the

peace, the Battle of Health must be waged with all available resources and on the broadest possible front".

The political, social and economic reformers are having a field day in grappling with the problems of reconstruction and rehabilitation. A number of elixirs have already been suggested — the markets of tomorrow — trade and commerce — transportation — educational reforms — health insurance — social security — immigration — housing and community planning, and so on. These are all vital questions, but let me ask quite humbly, for whom are the problems being solved? For whom are we fighting this war? Is it not our children? May I submit that without a sound, healthy, virile people, the finest solutions of these problems will be totally ineffective. Surely the health of our people should receive as much attention from the Government as it gives to the raising of wheat, cattle and hogs.

We have in Canada three and a third millions fourteen years of age and younger; we have four and a half millions under twenty years of age — 39% of our population. These are the Canada of to-morrow and they will go where so many others have gone, unless our Governments arouse themselves and cease to neglect our most valuable assets — human lives. The recent report of the Canada and Newfoundland Education Association gave vigorous emphasis to its recommendation that our first responsibility was the health and welfare of our children.

Potentially we are as good as any other people, but until constructive, aggressive action is taken to arouse public consciousness by various educational enterprises, the situation will be slow to change. Facilities are not enough, skilled leadership in these educational endeavours is essential if they are to be successful.

Particular attention should be paid to the problem in industry. Even in the last war, and again after Dunkirk, Britain found that it was not possible for workers to carry on effectively with sustained maximum pressure. Many factors are involved, but it is definitely established that good physical and mental health achieved through suitable recreative programmes, can do a great deal to increase the all-round efficiency of the individual.

It is presumed that all these problems will be directly affected by the proposed legislation for health insurance and social security. To be most effective, any social legislation needs the cooperation of Federal, Provincial, Municipal and voluntary agencies.

All citizens and organizations concerned with the physical, mental and moral welfare of our people should render enthusiastic support to the recently proclaimed National Physical Fitness Bill. This Bill provides for financial assistance to the provinces to the extent of \$225,000.00. As soon as a province establishes an organization for the purpose of promoting physical fitness and enters into an agreement with the Federal Government, that province will receive an amount paralleling the provincial expenditure up to the sum allocated to each province. The distribution of the Federal grant is as follows:

British Columbia	\$16,015.75
Alberta	15,590.50
Saskatchewan	17,545.75
Manitoba	14,290.00
Ontario	74,173.75
Quebec	65,248.00
New Brunswick	8,957.50
Nova Scotia	11,317.75
Prince Edward Island	1,861.00

At least three provinces must participate in the plan before the Bill can be made effective.

The object of the Bill is to promote the physical fitness of the people of Canada through the extension of physical education in schools, universities, industries and other establishments; to train teachers and lecturers in the principles of physical education; to organize activities designed to promote a greater measure of physical fitness; to provide facilities therefor and to co-operate in the amelioration of physical defects amenable to improvement through physical exercise. The objective includes the development of a desire for the well-being associated with physical fitness in persons of all ages; the strengthening of morale through a nation-wide programme and the enlistment of support by interested volunteers and organized physical fitness agencies.

The Provincial Governments are not responding very readily. We no longer raise an eyebrow at the eleven million dollars we spend every day for war. Are we going to question an annual expenditure toward safeguarding the health and fitness of generations to come, which would only last our fighting forces approximately thirty minutes?

Holding its rightful relationship to education and health, physical education provides for:

- (a) An adequate health examination and comprehensive protection for every school child, including control of communicable diseases and a healthful school environment.
- (b) A programme of health instruction, progressively arranged and directed toward personal accomplishment and social ideals.
- (c) A programme of physical education to meet the needs of various ages in developing organic and functional fitness.
- (d) Through its recreative activities for the development of these personal and social qualities which lead to happiness and character.
- (e) Adequately trained and accredited supervisors and teachers to carry on the programme.

In planning for the future therefore, we should:—

- (a) Recognize the value of our essential human assets.
- (b) Know something of the laws of growth and nurture.
- (c) Have adequate facilities.
- (d) Plan our activities so that physical, social and mental health will result.

If we do these things, we will have:—

- (a) More efficient machines,
 - (b) More harmonious reactions and relationships,
 - (c) More Happiness, and
 - (d) A fuller enjoyment of the peace to come.
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City Planning and the Law



By HONORÉ PARENT, K.C.

Director of Municipal Departments, Montreal

It is quite useless to prepare master plans, to lay out future cities so as to assure rapid, orderly movement of traffic on public thoroughfares, and to design carefully planned urban and suburban districts, if there is no law to back up these projects. Without such a law, they are nothing but vain speculation. It is the exclusive domain of the legislator to give life to these conceptions, to animate these theories. Without a law, they remain quite illusory.

The law, therefore, plays an essential role in the preparation of a master plan.

It is often said that, in the Province of Quebec, we have no community planning legislation, such as we find elsewhere. This fact is cited as an excuse for the disorder which reigns in some of our municipalities. Undoubtedly, it would be infinitely better if we had a general law covering the physical layout of our municipalities and regional planning projects.

Nevertheless, there is nothing to prevent our dealing at once with the most urgent problems of community planning. There is no reason why we should not learn to make the best use, now, of the legislative material already at our disposal. That is the purpose of the study which follows.

I. — *General Powers in regard to Community Planning*

Without having any general law on this subject, such as can be found in certain European countries and in the United States, we find in the legislation of this province, provisions which enable our cities and towns to plan for the future. Even our rural communities have all the authority required to push forward in this domain, thanks to laws which deal with public health, public services, thoroughfares, building by-laws, expropriation, zoning and other subjects which we shall study in detail.¹

1. Municipalities, in the Province of Quebec, may be summarily classified as follows:

- I. Municipalities governed by the Municipal Code:

- a. The county municipality is composed of all the mayors of the municipalities subject to the Municipal Code in a provincial electoral division. The members of this body elect from among themselves a chairman who is called the prefect of the county. This council

On the other hand, we are far from having reached the point marked by the French law of 1919, which required every municipality of 10,000 inhabitants or more to adopt a general plan covering the width and nature of streets to be created or to be altered, spaces reserved for public squares, gardens and playgrounds, and dealing with monuments and public buildings—a master plan which had to be accompanied by a program of public health and aesthetic measures. Neither have we anything to compare with the 1935 legal decrees with regard to the planning of the District of Paris, the advantages of which regulations were later extended to isolated communities that do not come within the scope of a regional plan.

We may as well admit that we have not even, on this subject, any legislation similar to the provisions of the charter of the City of New York, adopted in 1936, creating a City Planning Commission whose recommendations, for the most part, can only be turned down by a vote of three fourths of the members of the Board of Estimate, which is the body that really administers that city.

Neither have we, in Quebec, Enabling Acts such as exist in certain other Canadian provinces and in some of the States of the Union. These laws are, for the greater part, based on two model laws drawn up in 1926 by a special committee appointed by Herbert Hoover when he was Secretary of State for Commerce in the United States. They bear the titles: "A Standard City Planning Enabling Act" and "A Standard Zoning Enabling Act". They give to those municipalities which decide to take advantage of them the necessary authority to draw up master plans and to adopt by-laws relative to zoning.¹

In the United States, the legislation on this subject is found in general laws which affect all municipalities, or certain categories thereof, or counties; in laws which apply only to the municipalities or counties specified therein, or in individual city charters. In 1940, thirty-five States had such city planning laws and twenty of them had laws on county planning.

decides questions interesting many municipalities. It should be an important factor in regional planning.

- b. Villages, parish and township municipalities which are not constituted into cities or towns. A village is a community of at least 40 houses, covering an area of 60 arpents and with a real estate municipal valuation of at least \$50,000. Parish and township municipalities must have a population of at least 300 souls.
 - II. Municipalities governed by the Cities and Towns Act:
 - a. Municipalities with a population of at least 2000 souls may be formed into a town corporation by letters patent issued by the Lieutenant-Governor in Council.
 - b. Municipalities with a population of at least 6000 souls may, in the same manner, be incorporated by charter into a city.
 - III. Cities or towns with special charters granted by the Legislature. They are not, or are in part only, subject to the Cities and Towns Act.
1. Frank B. WILLIAMS, *The Law of City Planning and Zoning*, pp. 529 et seq. and 581 et seq. concerning laws prior to 1926. — *The Magazine Urbanisme* (Paris), Oct.-Nov. 1935. — *The New York City Charter*, 1936, ch. 8. — *Planning Legislation and Administration*. Summer Conference on City and Regional Planning, Massachusetts Institute of Technology, Sept. 1943.

Be it noted in passing, that the City of Montreal is authorized (by virtue of Act 5 Geo. VI, Ch. 73, Art. 67) to create an administrative service under the name of The City Planning Department of the City of Montreal, the head of which shall have the rank of a Director of a Department. The council determines by by-law the attributions of this department and provides it with an advisory committee comprising at least seven, and not more than fifteen, members.

In 1941, the Council appointed a City Planning Department with well defined functions. This new organism amply justified its creation. Remains yet to give it a wider scope, and greater authority. To achieve this result it would be advisable to amend on two points the by-law which brought it into being.

Firstly, the City Planning Department, when it draws up a draft regulation or a draft plan, and before making any pronouncement, should be obliged to call together all the interested parties at a public hearing, in order to hear any objections or any observations they may wish to make. Secondly, the Council should not have the right to amend any recommendation made by this Department, and should only be able to reject such recommendation by a preponderant majority vote of its members.

Nevertheless, although we lack a general law applicable all over the province, we have however certain legislative beginnings which allow of logical and progressive planning of our municipalities.

II — *Cadastré and Subdivisions*

All regulations, prohibitions and restrictions suggested by community planning with regard to subdivisions of land, building, public health and safety are measures which to some extent infringe upon the rights of private property. They reduce a man's "right of enjoyment and disposal" which is the very essence of private property. But community planning makes still further demands which I purpose reviewing while summing up our municipal law in regard to public thoroughfares, parks and playgrounds, public services and the help that our municipalities can give to the teaching of the fine arts and physical culture. This study will develop along the main lines that I have just indicated.

It is therefore impossible to indulge into community planning without constantly infringing upon the inherent rights of private property, as we have seen. But public interest gives us authority to impose on property owners, to a limited degree, hygienic and aesthetic rules to be followed in the subdivision of their lands or in the erection of their buildings.

The establishment of a cadastre is the first step toward the laying out of any territory.

When one is dealing with a city, the task is much more delicate, on account of the great number of streets, the density of the population, the intensity of traffic, than when dealing with a rural municipality where there are only a few roads and where farms cover a wide expanse of land. We shall therefore give our attention especially to urban subdivision, on account of its greater importance.

The subdividing of a parcel of land must, logically, be done under the supervision of either the Provincial or the Municipal government.¹

Property owners have the right to subdivide the lands that they own. They are required, nevertheless, to deposit in the office of the Commissioner of Crown Lands a plan and book of reference of such subdivision. The registrar himself prepares the index (C.C.2175). These plans and books of reference come into effect on proclamation by the Lieutenant-Governor in Council (C.C.2176a).

When there are streets or lanes shown on the plan and book of reference, the Minister may not examine them unless accompanied by a certificate given by the secretary-treasurer of the interested municipality, attesting that they have been approved by the Council, in so far as the streets and lanes are concerned. This is also the case when a modification or a cancellation is in view.² But that is not enough. It would be better to follow the system in force elsewhere, under which a particular subdivision may be imposed on the interested parties, in certain cases, in order to make sure that the land available for building is divided up with some thought for public welfare.

Going still further, the public administration should have authority to reintegrate broken sections of properties, following expropriations, in order to put together parcels of land which, left as separate entities, could never be put to any use.

Be it here added that the "Public Streets Act" contains provisions which, in cities, towns and villages, require everyone who subdivides his land into building lots, to have his plan of subdivision approved by the City Council. But the object of this is merely to make sure that the streets will have a minimum width of 66 feet.³

III. — *Health, Building and Zoning By-Laws*

Following a study of subdivisions, the next step is the analysis of laws concerning the erection of buildings. We shall now proceed to examine in detail that part of our legislation which imposes health and safety measures in reference thereto.

The salubrity of the dwelling is first of all assured by the Quebec Public Health Act. Its main object is to create a Provincial Bureau of Health having jurisdiction over all municipal centres, without distinction. This body is specially responsible for preventing the pollution of lakes, rivers and streams. It determines the method of construction and maintenance of public and private sewers and drains, and the conditions of salubrity of houses. Furthermore, every municipal by-law

1. Frank B. WILLIAMS, *The Law of City Planning and Zoning*, pp. 583, 584, 633. — The New York City Charter, 1936, art. 202. — Cadastre Act, Revised Statutes of Quebec, 1941, ch. 320.

2. Cadastre Act, art. 20.

3. Public Streets Act, R.S.Q. 1941, ch. 242, art. 6 et seq.

dealing with the construction of buildings must be submitted to the Minister of Health, for his approval as far as concerns hygienic conditions (Art. 21).¹

On February 12, 1924, the Lieutenant-Governor in Council approved a series of sanitary regulations with reference to dwellings generally. They are compulsory, by law. It would take too long to comment on them here.

These health regulations oblige property owners, among other things, to leave a certain free space between the walls of the building and the limit of the land. In other words, they restrict the amount of surface available for building, so as to assure the dwellings more air and more light.

Municipalities have, by the general law or by their own special charters, full jurisdiction to enact similar by-laws.

Let us bear in mind, besides, that not only are they authorized by the laws which govern them, to organize Boards of Health, but the Public Health Act empowers the Minister of Health to force them to create such Boards.²

By virtue of these laws, communal administrations can be assured of the solidity and salubrity of buildings. They have even the authority to cause to be demolished such as may become a danger to public health or safety. It is they who set the alignment of buildings and determine the level of the streets.³

They have also the faculty of only allowing, in certain streets or in certain districts, buildings erected according to the prescriptions of their by-laws. They have full discretion to require builders of houses to submit their plans and specifications for their approval.

These provisions make it possible to see that the elementary rules of hygiene are observed, and that some architectural care be given due consideration in the construction of dwellings.

Cities and towns are also free to require factories to make use of appliances for the combustion of smoke and waste gases.⁴

1. Department of Health and Social Welfare Act, R.S.Q. 1941, ch. 182. — Quebec Public Health Act, R.S.Q. 1941, ch. 183. — Drainage Act, R.S.Q. 1941, ch. 112. — Drainage Improvement Act, R.S.Q. 1941, ch. 225. — Laws concerning cemeteries: R.S.Q. 1941, ch. 308, art. 13, 15, 16; ch. 312, art. 12, 13; ch. 314, 315, 316. — Municipal Code, art. 390, 411-414. — Cities and Towns Act, R.S.Q. 1941, ch. 233, art. 427, par. 8-15, 22-32; art. 433 et seq. — Charter of Montreal, art. 300, par. 94.

2. Québec Public Health Act, art. 23. — Municipal Code, art. 405. — Cities and Towns Act, art. 427, par. 1. — Charter of Montreal, art. 300, par. 112. — Cf. also: Health Units Act, R.S.Q. 1941, ch. 184.

3. Guay vs. Town of Chicoutimi, 34 K. B., 455. — Municipal Code, art. 392, 392a, 417, 418. — Cities and Towns Act, art. 425; art. 426, par. 1-4, 19; art. 427, par. 8-10. — Charter of Montreal, art. 300, par. 44-46, 56, 63, 91a, 99, 110, 144.

4. Cities and Towns Act, art. 426, par. 5. — Charter of Montreal, art. 300, par. 49, 82. — H. L. McBAIN, *American City Progress and the Law*. — Brown vs. Canada Paper Company, 63 Supreme Court, 246.

Public administrations are armed against the poster plague. There is nothing to prevent their regulating, or even abolishing posters. The Provincial government has already begun banishing them from its highways.¹

All municipal councils, including those subject to the Municipal Code, have the right to make certain fire-prevention measures compulsory and to organize for the prevention of fires and for dealing with them when they occur. It is also within their powers to forbid wooden houses on certain streets or in certain districts.²

Sections may be assigned to noxious industries, such as those which employ steam or gasoline engines; they may even be forbidden entirely. The same applies to slaughterhouses, gasworks, tanneries, candle and soap factories, distilleries and other similar enterprises considered as public nuisances. Our city administrators are authorized first to define them, and then to prohibit them. But it seems, according to the law, that cities only have the faculty of prohibiting them. Other municipalities have authority to decree certain zones as exclusively residential.

Pulp and paper plants are exempt from the prohibition even in cities and towns. The latter have only authority to prescribe the district in which they may be established.³

To sum up, our smaller towns and villages, especially those located in the vicinity of a national park or of an urban centre, have sufficient latitude in respect of zoning and control of building. A simple reference to Art. 426 of the "Cities and Towns Act" and Art. 392a of the Municipal Code will suffice to make that clear. These articles are of fairly recent date, and are of great importance; it is well to draw very special attention to them.⁴

It is, however, to be regretted, as Emile Morin, Deputy Minister of Municipal Affairs, has pointed out, that in these municipalities the Council is unable to change any regulation concerning the above-mentioned matters without the consent of "the majority in number and in value of the electors who are owners of immovable property situated in each district or zone to which the proposed change or repeal would apply."

This precaution seems exaggerated. It would become unnecessary, if the law substituted the approval of a Provincial Planning Service

1. Cities and Towns Act, art. 428, par. 6; art. 429, par. 15. — Charter of Montreal, art. 300, par. 7, 9, 10, 78, 170, 176. — Act respecting Signboards and Posters, R.S.Q. 1941, ch. 145.

2. Municipal Code, art. 407, 414, 419. — Cities and Towns Act, art. 426, par. 18-44. — Charter of Montreal, art. 300, par. 45-47, 66, 113, 114, 127, 128. — Public Buildings Safety Act, R.S.Q. 1941, ch. 170. — Industrial and Commercial Establishments Act, R.S.Q. 1941, ch. 175. — Public Buildings Municipal Regulation Act, R.S.Q. 1941, ch. 237.

3. Municipal Code, art. 404, par. 1, 3; art. 414; art. 419, par. 11. — Cities and Towns Act, art. 426, par. 1, 29; art. 427, par. 16-19; art. 468. — Charter of Montreal, art. 300, par. 44a, 50, 53-56, 90.

4. Municipal Code, art. 392a. — Cities and Towns Act, art. 426, par. 1.

which we recommend, instead of the approval of the elector-property-owners.¹

Perhaps it would be prudent, in the elaboration of a city planning program, to take note of the provisions of our Civil Code regarding the views upon the property of a neighbor. They forbid, *inter alia*, any direct "views or prospect-windows, galleries, balconies or other like projections overlooking the fenced or unfenced land of the other; they must be at a distance of six feet from such land." (C.C. Art. 533-538.)

That is the legislative inheritance that has been left to us, as regards the powers of City Councils to regulate private property from the triple viewpoint of safety, health and artistic appearance.

The logical sequence of the present work would now be, to take a look at what has been done by virtue of these laws. That, however, would impose on us a task that would be of little interest, except for the specialist, and interminably long. As far as concerns Montreal, in particular, the building by-laws are beyond number, and differ from ward to ward, even from street to street. Paraphrasing a famous remark of Pascal, we might say: "True on one side of the street, false on the other."

Insistence must be laid on the necessity of having building by-laws that are clear, practical and not entirely lacking with respect to architectural symmetry. It is to be hoped that they may tend toward a more rational layout of the superficies available for building. At least, let us pray that they edict the end for all time of two-flat properties on 25 foot front, and also, of outside stairs.

Let us note, before concluding, that the National Research Council has published a National Building Code, prepared in collaboration with representatives of all the provinces. The Montreal City Planning Department is at present busy drafting a building code for our city.²

IV.—*Public Thoroughfares, Parks, Playgrounds and Markets*

Any general legislation would be incomplete if it did not provide for convenient and pleasant looking streets; or if it did not enable the municipal administration, in certain cases, to acquire necessary properties at the lowest possible cost and in the shortest possible time, in order to open new streets or widen existing ones. Open spaces, parks and playgrounds are necessary in the interests of all residents and especially of the young. To assure the food supply of the community it is essential that markets be provided.

This has been generally appreciated. It can safely be affirmed that all this is the natural accompaniment of civilization.

1. It is satisfactory to record that such a Provincial Planning Service has now been instituted.
2. It will be appropriate to list here the Provincial legislation designed to facilitate the building of dwellings: Workmen's Dwellings Act, R.S.Q. 1941, ch. 240; Dwelling-House Construction Companies Act, R.S.Q. 1941, ch. 241; Act respecting "Wartime Housing Limited", 6 Geo. VI, ch. 56; Act to Encourage the Construction of Dwellings by a Commutation of Taxes, 8 Geo. VI, ch. 37; Housing Act, 8 Geo. VI, ch. 38.

It is therefore incumbent on municipalities to assure these welfare provisions for the present and also for the future, by making advance plans of those parts of their territory that are not yet developed, and by acquiring the land which they immediately need. Cities and towns have adequate powers for this purpose.

In the notes to follow, we shall take no account of the Provincial highway laws, confining ourselves strictly to the streets in cities and towns.¹

The latter are authorized to adopt general city plans, according to the following provisions:

Article 413 of the Charter of the City of Montreal enacts that:

"The city council may instruct the city surveyor to lay out . . . upon "proper plans or maps, all the streets, highways, places and squares "of the city, with their actual limits and dimensions, within the "whole extent of the limits of the city, and this shall be done for "each ward separately, but in such manner that the plans or maps "of the different wards of the city shall correspond to each other, "and form, when completed and confirmed by the superior court, "as hereinafter provided, one plan to be known as "The General "Plan of the City of Montreal", provided however that this clause "applies only to continuations of the city plans as homologated and "now in force."

And Article 418 adds:

"The city shall not be liable for any indemnity or damages claimed "with respect to any building constructed, or improvements, leases "or contracts made by any person whatever, upon any land or pro- "perty, after the confirmation of any plan or map, or of any modi- "fication or alteration thereof, or addition thereto."

The Council may also:

"Regulate the subdivision into streets of any land situated within "the limits of the city, and prohibit any such subdivision whenever "the same does not coincide with the general plan of the city, and "compel the owners of private streets and lanes to indicate that the "same do not belong to the city." (City Charter, Art. 300, par. 84).

Still more, the City has the necessary authority:

"To draw plans of streets extending . . . to the confines of or to "any place on the island of Montreal for the purpose of having a "general plan of the streets throughout the island." (City Charter, Art. 300, par. 119.)

However, this article does not apply "to municipalities that have already had plans of their streets made and homologated, unless they consent thereto."

1. Roads Act, R.S.Q. 1941, ch. 141.

The Cities and Towns Act contains provisions similar to Articles 413 and 418 which I have just cited.¹

There is nothing of the sort in the Municipal Code, although we find therein everything we need for the execution of an elementary program of town planning, as we shall see later.

It was considered inadvisable to leave, either to individuals or to municipalites alone, the task of setting the width of streets. The Legislature has therefore decreed that:

"In every city, town and village municipality, no matter by what law governed, the roads and streets shall have a width of "at least 66 feet, English measure."²

The Lieutenant-Governor in Council may, nevertheless, in certain exceptional cases, tolerate streets of lesser width.³

We have seen that, in cities and towns, the administration is at liberty to project on any given territory, a sort of imaginary network, and to forbid property owners thereafter to build between any one line and any other line, with a view to reserving space there for a public place. I forgot to mention that, although the individual who builds there does not receive any compensation for his improvements when the expropriation takes place, the municipality, on the other hand, cannot be required to pay damages if at any time it decides to abandon its plan.

It has also the means at its disposal of increasing the width of its streets at no cost, by establishing a building line, or an homologated line. These two servitudes are often confused, although they differ considerably.

A building line is established, when it is decreed that houses must be built at a certain distance from public property.

The City of Montreal can impose, in this manner, a servitude of public utility on private property as far as 25 feet. (Charter, Art. 300, par. 44a.) It is then said that the building line is 25 feet back from the City property. These restrictions remain so long as they are not abrogated.⁴ The same applies to building by-laws.

The homologated line is established when the municipality intends to acquire, at some later date, the land affected by it. It has the same effect as the general plan of which we have already spoken. It differs from the building line, in that it is not always drawn along the side of a street: homologated lines may be drawn across lands not yet subdivided. The property owner who finds the exercise of his property rights thus hampered, has no recourse. With his consent the City of Montreal can always buy the parcel of land affected by that line, for the amount of

1. Cities and Towns Act, art. 430-432; art. 429, par. 8.

2. Public Streets Act, art. 5, 6. — Concerning country roads and streets in cities and towns, cf.: Municipal Code, art. 468, 469; Cities and Towns Act, art. 429-432.

3. Public Streets Act, art. 7. — Charter of Montreal, art. 420a.

4. Morgan vs. City of Montreal, 60 Supreme Court, 393.

its municipal valuation plus 20 per cent, if there is a building on it, and for the municipal valuation alone, if it is not built. Formerly, the administration was required to proceed, in acquiring the property, along the lines just indicated, if the property owner insisted on it. Now that it has become optional, this clause has no further usefulness. Finally, the property owner is not required to pay any city taxes on the land which is separated from the rest of his property in this way, if there is nothing built on it and if he does not derive any revenue from it. This last provision ought to be reproduced in the Cities and Towns Act, which is silent on the subject. The homologation is subject to a thirty year prescription, which is not the case for the building line.¹

The Municipal Code does not allow the establishment of homologated lines.

The street lines mark the limits of public property.²

Finally, it remains for us to learn what constitutes an expropriation line. Its purpose is to indicate the space comprised in the proposed acquisition. It has the same effect as the homologated line in this sense that, once it is established, the condition of the property included within the line may not be changed: if it is, the owner cannot obtain any compensation in respect of anything that has been built on it, or of any leases concluded, after the decision of the municipal authority. As far as the City of Montreal is concerned this servitude is subject to a one year prescription, "after notice has been given in the council of the resolution for the purpose of such expropriation." Once the time has expired the owner may do as he pleases with his property.³ No such provision exists for the other municipalities.

These are all measures which encourage the free expansion of municipalities and invite them to give to their public thoroughfares the width and the aspect best suited to the community life and to the improvement of living conditions.

They are also measures which hamper the free enjoyment of the rights of property. These lines constitute servitudes which, in some cases, are not easily accepted.

The long and complicated expropriation proceedings of former days have been considerably simplified, at least as far as Montreal is concerned. But municipal administrations are not always required to follow these methods of proceeding. There are various other means available to them, for the acquisition of private property.

Before entering upon this study however, we must recall the great principle formulated by Art. 407 of the Civil Code, that "no one can be compelled to give up his property except in consideration of a just

1. Civil Code, art. 2242. — Charter of Montreal, art. 413, 417, 418, 419a, 419c, 420, 452. — *City of Montreal vs. Smith Estate*, 54 Superior Court, 124. — *City of Montreal vs. Tiffin et vir*, 17 R.L., n.s., 472.

2. Municipal Code, art. 417. — Cities and Towns Act, art. 429, par. 5. — Charter of Montreal, art. 300, par. 91, 91a.

3. Charter of Montreal, art. 428, 437.

indemnity previously paid." Let us now see how a municipality can become a property owner.¹

First of all, it is authorized to take over private property for purposes of public utility, by mutual agreement and purchase, in accordance with the provisions of the Civil Code with regard to sales.² That is the means provided by common law.

It can also have recourse to the expropriation proceedings specially provided for that municipality. According to the Municipal Code, the compensation to be paid is first determined by the municipal assessors, after hearing the interested parties and their witnesses. Their decision is final, unless the expropriated party appeals within thirty days of the notice he has been given, of its having been deposited at the office of the municipality. If there is an appeal, three arbitrators are named; one chosen by the administration, the second by the expropriated party and the third by the two arbitrators first-named. They proceed in the same manner as the assessors did, and the decision they give is final and without appeal.³ These provisions also apply to county corporations.

Since 1922, the Public Service Board of the Province of Quebec is charged with the task of deciding all expropriations decreed by cities and towns, including the City of Montreal. Its findings on facts are not subject to appeal.⁴

The powers of the City of Montreal have certain special characteristics which it is worth while noting.

First of all, not only can the City expropriate within the limits of its territory, but it has the right to "extend its streets through the territory of another municipality."

Secondly, there is no limit to its expropriation rights, in this sense that it can acquire all sorts of buildings and lands, "for any municipal purpose whatsoever."

Its charter even authorizes it to expropriate more than the immovables required for the proposed purposes, with a view to reselling the surplus, "provided always that the proprietors be not called upon to pay the purchase price of such immovables or parts of immovables," and that this be done with their consent. (Art. 421.)

And further:

"In all cases where only a part of an immovable is expropriated "which would be reduced by such expropriation to less than 40 "feet in depth or less than 24 feet in width, the president or vice-"president of the Quebec Public Service Commission shall decide

1. Municipal Code, art. 356, 787-790, 793. — Cities and Towns Act, art. 429, par. 33; art. 605-607. — Charter of Montreal, art. 421 et seq.

2. Civil Code, art. 1472 et seq. — Municipal Code, art. 794. — Cities and Towns Act, art. 608. — Charter of Montreal, art. 421.

3. Municipal Code, art. 795-797.

4. Act respecting Expropriation, 4 Geo. VI, ch. 71. — Cities and Towns Act, art. 609. — Charter of Montreal, art. 421.

"whether or not the city shall acquire the lot or lots in its or their entirety. In the case of the total or partial expropriation of a building or structure whatsoever, he shall likewise decide, with a view to reducing as far as possible the cost of the expropriation, whether the city shall acquire the said building or structure in whole or in part, or whether the expropriated party shall move the said building or structure to the remaining part of his land, within the delay fixed by the former and on prior payment of a fair indemnity." (City Charter, Art. 427.)

The City may not be held to pay the costs of witnesses, experts or lawyers. (Art. 436.)

The acquisition of immovable properties by the City of Montreal, for the opening or the widening of public thoroughfares, or for the creation of open spaces, is usually paid for by the bordering property owners, or by the taxpayers of the district. These payments are usually spread over a period of ten to twenty years.

Let us compare this method with the system in force in Paris. In some instances the right to acquire immovables on its behalf is conceded by the municipality to a private syndicate, on certain conditions. This mode of proceeding is quite usual, in Europe. The residue of land available after the size of the street is brought up according to the official plans, remains the property of the syndicate. For the opening of the last section of Boulevard Haussmann, which cost about 85 million francs, the municipality bore only 50 per cent of the cost in one section, and 60 per cent in another; the syndicate to whom the residue of the land was handed over paid the balance, with the further condition that it would "demolish the expropriated buildings and reconstruct, or have reconstructed, in compliance with the building line on the remaining parcels of land". The cost price of the lands which this syndicate thus had for resale was assessed at 4,300 francs per metre, and the resale price works out at sums varying from 11,000 to 25,000 francs the metre.¹ Such a system, if adopted here, in certain cases, would perhaps relieve the taxpayer to some extent.

The third method of property acquisition available to municipalities is that known as "dedication". It is the act by which a person cedes or hands over, free of charge, a certain area of land for public purposes. There must be no doubt or equivocation as to the intention of the property owner to dispossess himself of his property. This is not always easy to establish.

In the fourth place, the City of Montreal has, in its charter, means of acquiring a public road by a ten year prescription. Here is what is laid down on this subject in Art. 410:

"It shall be the duty of the city surveyor to cause such of the streets, lanes, highways and public squares or any part thereof, as have been acquired by the city or have been open for public use for ten years and not heretofore recorded or sufficiently described,

1. Magazine *L'Illustration* (Paris), July 4, 1925.

"to be described and recorded in a book or register, to be kept exclusively for such purposes; and such streets, lanes, highways and squares, when entered of record, shall be deemed to be public highways."¹

Finally, and again solely for the benefit of the City of Montreal, there is another method, an indirect one, of incorporating in a way private property into the public domain. This is by the means provided in Act 3 Geo. V, Ch. 54, Art. 43, which permits the City

"to perform, in and on any private street or lane, any municipal works whatsoever, without being held to pay any damages or compensation for the use and possession of such private streets or lanes and to charge the cost of said works as provided by the charter or the by-laws."²

This enactment, however, does not mean that the City has the right to thus convert a private property into a public one.³

A road having been acquired, the duty remains with the municipality of carrying out the necessary works to render it fit for traffic, to maintain it, to keep it clear, to ornament it by the planting of trees or otherwise. The city has all these powers. It can either assume the cost of these works, or assess it upon the interested property owners.

County municipalities enjoy the same privileges. Cities and towns have even the necessary authority to force a property owner to plant trees in front of his property.⁴

Likewise, our municipal corporations have power to regulate traffic and to adopt regulations providing for their contribution to

"the expenses of safeguarding, whether by the erection and maintenance of gates or the construction of tunnels or overhead bridges, or other like devices, the approaches to a railway which crosses on the level any public road."⁵

A city is definitely short of an essential, if it has no markets; and it cannot be beautiful and healthful if it has no parks, public places and playgrounds.

1. *Lachevrotière vs. City of Montreal*, Beauchamp, Privy Council, vol. I, p. 399.

2. *Charter of Montreal*, p. 364.

3. *Larivière vs. City of Montreal*, 63 Superior Court, 398.

4. *Municipal Code*, art. 413, par. 5; art. 444 et seq.; art. 624-633. — *Cities and Towns Act*, art. 429, par. 2, 3, 11-16, 19-23, 30-32. — *Charter of Montreal*, art. 300, par. 1-11, 67, 92, 133, 139, 153; art. 548.

5. *Municipal Code*, art. 413, par. 6; art. 429. — *Cities and Towns Act*, art. 429, par. 25-29. — *Charter of Montreal*, art. 300, par. 12, 13, 58, 59, 115, 116, 130a, 141, 172; 5 Geo. V, ch. 89, art. 25 and 18 Geo. V, ch. 97, art. 31 (*Charter*, p. 201); 12 Geo. V, ch. 105, art. 24 (*Charter*, p. 207). — *Motor Vehicles Act*, R.S.Q. 1941, ch. 142, art. 37, 38, 43, 59-62. — *Road and Bridge Speed Act*, R.S.Q. 1941, ch. 144. — *Railway Crossing Protection Municipal Contribution Act*, R.S.Q. 1941, ch. 224.

As to markets, all power is given us to establish them, administer them, and permit others to operate them.¹

If our urban centres are not better provided with public places and parks such as are the pride of European cities, it is certainly not the fault of our legislation, as may be judged by this article of the Municipal Code:

"Every local corporation may make, amend or repeal by-laws
"to open, enclose, embellish, improve and maintain at its expense,
"squares, parks or public places of a nature to conduce to the
"health and well-being of the inhabitants of the municipality."²

Similar provisions are found in the Cities and Towns Act, and in the charter of Montreal. The latter, however, also contains the following provision:

"The council may contribute to the expenses of a committee appointed to make inquiries in connection with the establishment
"of a Metropolitan Parks Commission."³

One may therefore conclude from the preceding, that our municipal councils have all the necessary latitude to acquire the streets, the parks, the public places and the playgrounds they need, in accordance with the desires of the most exacting town planner, and that these powers are granted to the humble rural municipality as well as to the big city.

V. — *Public Utilities*

Streets do not exist solely for the use of individuals. Modern progress has both simplified and complicated life. One may press a button and behold, a whole city is illuminated.

Thanks to the telephone and the telegraph, thousands of conversations and messages travel simultaneously over the electric wires which parallel our streets.

In addition to the crowds that move along them, these thoroughfares are utilised by public transportation systems, by gas and electrical services which instal their poles above and sink their conduits below the streets. In order to distribute heat, light and motive power, to abolish distance and bring to us the voice of absent ones, these organizations have but one ambition, the straight line, the shortest distance between two points. With this object in view, alas, they cut down the loveliest trees, raise their poles and stretch their countless wires along the sides of our streets, dig up our highways and rush destructively here and there in all directions. That is the reason why the Legislature has had to intervene, with measures that we shall shortly study.

1. Municipal Code, art. 416, — Cities and Towns Act, art. 466, 467. — Charter of Montreal, art. 300, par. 31, 38.

2. Municipal Code, art. 410, 787.

3. Cities and Towns Act, art. 429, par. 4. — Charter of Montreal, art. 300, par. 91; art. 421; 1 Geo. V, ch. 48, art. 53 (Charter, p. 507).

The city planner must be aware of these measures, in order to know how to attract these companies within the limits of his community. It is important for him to be able to assign to them a certain territory or a certain route, and to oblige them to sink their wires underground, or to impose on them reasonable tariffs. It is only by means of the law that he can learn of these things, and learn how to bend these rebellious entities to the rule of common sense. It may even be that his municipality may have to operate such services itself, for the benefit of its residents. It is wise for him to learn that it has such powers.

It is also possible that a municipality may have reason for wanting to bring a railway line into its territory, or a tramway or autobus company, or a waterworks plant, or some industry. To induce them to set up their plant within its limits, the administration may think it worth while offering them an exemption or a rebate of taxes, or a franchise, or a monopoly.

Formerly municipalities had more general powers along these lines: but the Legislature, in the new Municipal Code and at the last revision of the statutes, took steps to restrict them.

All municipalities, Montreal included, are forbidden to grant tax exemptions to new or existing industries. The "Municipal Aid Prohibition Act" (R.S.Q. 1941, Ch. 220, Art. 2) stipulates:

"2.—Notwithstanding any contrary or incompatible provision in any general or special act, no municipality shall, directly or indirectly, assist any industrial or commercial establishment or, without in any way limiting the generality of the foregoing words, grant assistance, more particularly in any of the following ways, to wit:

"1. By taking or subscribing for shares in any company created for such object;

"2. By giving or lending money or other security or in giving the use or ownership of any immovable;

"3. By guaranteeing, by endorsement or otherwise, any sum of money borrowed;

"4. By granting any exemption from taxation to any industrial or commercial establishment.

"However, any municipality other than a city or town municipality, may, by by-law, contribute, by means of a loan or otherwise, to not more than half of the cost of the installation, within and without the territory of the municipality, of poles, wires, conduits and apparatus for the transmission of electricity in such municipality. Such by-law, even if it enacts a loan, shall be subject only to the approval of the Lieutenant-Governor in Council."

The City of Montreal has no such power. It is authorized to grant tax commutations to railway companies only.¹

However, a tax exemption in favour of railroad companies, under certain conditions, is imposed upon municipalities governed by the Municipal Code, in the following terms:

1. Charter of Montreal, art. 564a.

"The following property is not taxable:

"(e) All property belonging to any railway company receiving a "subsidy from the Provincial Government, for the period of twenty "years from the date of the first payment on account of the sub-"sidy."¹

The law further provides, however, that cities, towns and villages may adopt by-laws:

"To aid in the construction of any bridge, causeway, pier, wharf, "slide, macadamized or paved road, railway or other public works, "situated in whole or in part within the municipality or in its vicin-"ity, undertaken and built by any incorporated company, or by the "Provincial Government, or by any person:

"(a) By taking and subscribing for shares in any company formed "for such purpose;

"(b) By giving or lending money or securities or by giving the "ownership or enjoyment of any immovable property to such com-"pany or to the Provincial Government or to such person;

"(c) By guaranteeing by endorsation or otherwise any sum of money "borrowed by such company or by such person;

"(d) By exempting from the payment of municipal taxes, assess-"ments and dues, any railway company or companies having a sta-"tion or stations within the municipality, in accordance with the "provisions of the Municipal Tax Exemption Act (Chap. 221)."²

All municipalities have the right to own stock in any company formed to build telegraph or telephone lines, or waterworks. Such subscription must be authorized by a by-law submitted to the people.³

Cities and towns have the power to allow street railway companies, under such conditions as they may see fit to impose, to lay tramway lines in their streets, as well as to grant the right to operate systems of gas or electric lighting or heating, or electrical energy. If the duration of these franchises extends to more than ten years, however, they must be granted by a by-law submitted to the approval of the electors. These municipalities have further the faculty of indicating the places at which the poles and the lines must be installed or of requiring that wires be laid underground. The owners of houses may be compelled, subject to payment of an indemnity, to allow these installations to be made on their properties.⁴

1. Municipal Code, art. 693.

2. Cities and Towns Act, art. 474, par. 4. — Municipal Tax Exemption Act, R.S.Q. 1941, ch. 221, art. 2, 3. — Quebec Railway Act, R.S.Q. 1941, ch. 291, art. 47, par. 2.

3. Cities and Towns Act, art. 474, par. 4, 5; art. 475. — Gas and Water Companies Act, R.S.Q. 1941, ch. 294, art. 60. — Electric Light and Water Companies Act, R.S.Q. 1941, ch. 295, art. 2. — Telegraph Companies Act, R.S.Q. 1941, ch. 297, art. 21. — Telephone Companies Act, R.S.Q. 1941, ch. 298, art. 2.

4. Cities and Towns Act, art. 429, par. 12, 16, 17; art. 455, 463-465. — Municipal Franchises Act, R.S.Q. 1941, ch. 222, art. 2. — Quebec Railway Act, art. 130. — Charter of Montreal, art. 300, par. 4, 7, 8, 29, 74, 98, 124, 139; art. 530, 566; 9 Ed. VII, ch. 81, art. 25, 39, 40 (Charter, pp. 492 et seq.).

The other municipalities are at liberty to grant franchises to water-works companies for a period not exceeding twenty-five years, and to grant them subsidies. Moreover, railroad, telegraph, telephone and electric light companies are prohibited from placing their tracks, poles or wires in any way that would hamper traffic.¹

Cities and towns are authorized to regulate the method of making excavations in the streets. They may also prescribe the speed of street cars, the number of passengers that each of these may carry; prevent obstruction of streets by locomotives and railroad cars, the speed of the latter being limited to six miles per hour in the populous sections of towns.²

As regards Montreal in particular, its relations with the Tramways Company are determined by a contract which dates back to the year 1918 and which has force of law as between the parties (8 Geo. V, Ch. 84, Art. 75—City Charter, p. 181).

In concluding this part of our study which deals with public utilities, a question arises in our minds: "Are our communities authorized to own and administer such enterprises themselves?"

Municipalities governed by the Municipal Code and cities and towns, including Montreal, may not only acquire and operate waterworks, but they are also at liberty to establish and administer "systems of lighting, heating and power development by means of gas, electricity or otherwise, for the use of the public or of private persons or corporations desiring to make use thereof in their houses, buildings or establishments".³

VI — *Technical and Professional Education, Charity, Fine Arts and Physical Culture*

We thus see that our municipalities are assured of everything they require for their material organization.

We have also in our laws a galaxy of measures inspired by a taste for things intellectual and sentimental.

Along these lines, for instance, the humblest of our rural municipalities can take advantage of Article 398 of the Municipal Code, to come to the help of art or science, or to establish a public library or found houses of refuge.

1. Municipal Code, art. 408, par. 2, 4. — Quebec Railway Act, art. 130, 131. — Telegraph Companies Act, art. 9. — Telephone Companies Act, art. 2. — Electric Light and Water Companies Act, art. 2.
2. Cities and Towns Act, art. 429, par. 13, 25, 26; art. 465. — Charter of Montreal, art. 300, par. 4, 7, 12, 17, 98, 133, 141; art. 548. — Quebec Railway Act, art. 69.
3. Municipal Code art. 408, par. 1, 5, 6, 6a. — Cities and Towns Act, art. 433 et seq., 456, 464. — Charter of Montreal, art. 462 et seq.; 7 Ed. VII, ch. 63, art. 68 (Charter, p. 252); 9 Ed. VII, ch. 81, art. 37 (Charter, p. 243). — Electricity Municipalization Act, R.S.Q. 1941, ch. 213. — Cf. also: Gas and Water Companies Act, Electric Light and Water Companies Act.

Our cities and towns are further authorized to establish public museums devoted to historical, literary, artistic or scientific purposes.¹

The Quebec government has appointed a commission to "proceed to classify monuments and objects of art whose preservation is of national interest from an historic or artistic standpoint".²

Technical and pedagogical education has neither been overlooked. We have not yet gone so far as the French law of 1919 permitting certain communes or departments to oblige workers aged under 18 years to follow apprenticeship classes, and requiring employers to grant them from four to eight hours time off with pay each week, in order to attend these classes.³

Nevertheless, our municipalities are authorized to give every kind of encouragement to technical and professional education by the creation of libraries, museums and classes for that purpose.⁴

Finally, physical culture is also stimulated by the authority given by the law to municipalities for establishing public baths, and by the simple and inexpensive facilities which it affords to those who wish to organize recreational clubs.⁵

This, in summary, is what we find in our codes and our statutes in respect to community planning. If we are not justified in boasting unduly of it, neither have we any reason to be ashamed of it.

Our municipalities have the power to lay out their territory, not only in a practical and salubrious manner, but also with some thought for elegance. To that end, they have only to dip into the extensive collection of laws that we have just reviewed. The first steps in city and town planning therefore, in this province, should take the form of an education campaign. The rest will follow naturally.

That does not mean that we have reached perfection on this point, any more than elsewhere. We have urgent need of a local and regional planning law. As set forth in the resolution adopted by the Union of Municipalities at its last meeting, the government ought to create without delay a Provincial Planning Service which would be at the disposal of the less wealthy administrations, to help them solve their problems in this domain.⁶

Let us hope, meanwhile, that our municipalities will make more generous use of the powers they already have, in order to develop along lines of Health, Happiness and Beauty.

1. Cities and Towns Act, art. 477. — Charter of Montreal, art. 564b. — Free Library Municipal Aid Act, R.S.Q. 1941, ch. 243.

2. Historic Monuments Act, R.S.Q. 1941, ch. 70. — Cf. also: Provincial Museums Act, R.S.Q. 1941, ch. 69.

3. Georges SCELLE, *Le Droit ouvrier* (Labour Laws), p. 159.

4. Municipal Code, art. 398. — Cities and Towns Act, art. 477. — Charter of Montreal, art. 338a. — Vocational Courses Act, R.S.Q. 1941, ch. 62. — Free Library Municipal Aid Act.

5. Cities and Towns Act, art. 427, par. 22. — Charter of Montreal, art. 338a. — Amusement Clubs Act, R.S.Q. 1941, ch. 304.

6. Cf. note 1, p. 184.

City Owned Land and the Housing Problems in Montreal



By PERCY E. NOBBS, M.A.,

Consulting Architect to the City of Montreal

City Planning Department

Foreward

On the evening when I spoke in this series of addresses at the request of Professor Bland and with the consent of Mr. Aime Cousineau, Director of City Planning for Montreal, I was under engagement to report on city-owned land with a view to its utilization for housing estates, and on our slum clearance problems. As the report had not yet been received by the municipal authorities I could not deal with its contents. Instead I showed a series of slides illustrating the material I was working on, together with foreign types of plans for dwellings and views of some notable housing estates erected abroad. The slides were grouped as follows:

1. Oblique aerial views of Montreal.
2. Working maps of the city recording city-owned land, homologated streets, built streets, sewers, water mains, etc.
3. Charting of slum areas.
4. Types of estate planning recommended.
5. Foreign types of plans for dwellings.
6. Housing projects carried out abroad.

When invited to submit my paper for publication by the University it was clear to me that explanatory and critical running comment on 60 slides could hardly be reconstructed in readable form. But meantime I had prepared a *précis* of the Report. This the Director of City Planning has kindly released, and it is as follows.

Brief Précis of Report by P. E. NOBBS on City-Owned Land for Housing (December 30, 1943)

This is part of the report made to the Director of City Planning, Montreal, by Mr. Nobbs and Mr. Parizeau acting as consulting architects to the Department of City Planning on "the Application of City-owned Land to Residential and Housing Purposes." Mr. Parizeau reported on four categories of residential development: A, B, C and D; and Mr. Nobbs reported on four categories of housing: E, F, G and H.

In April 1942 "The First Report as to a Post War Programme of Housing for low wage-earners", in which I had a hand, was presented to the Department of City Planning, Montreal. This report showed a shortage of 50,000 low-rent dwellings in Montreal. The present report shows that 30,000 dwellings could be put on large parcels of city-owned land suitable for Housing Estates; that is 60% of the requirement. The relation of the present report to "The First Report", in which 'recommendation (b)' deals with the earmarking of large parcels of land for housing purposes, is one of continuity. For practical purposes this *précis* may be regarded as a "second report" on the same subject.

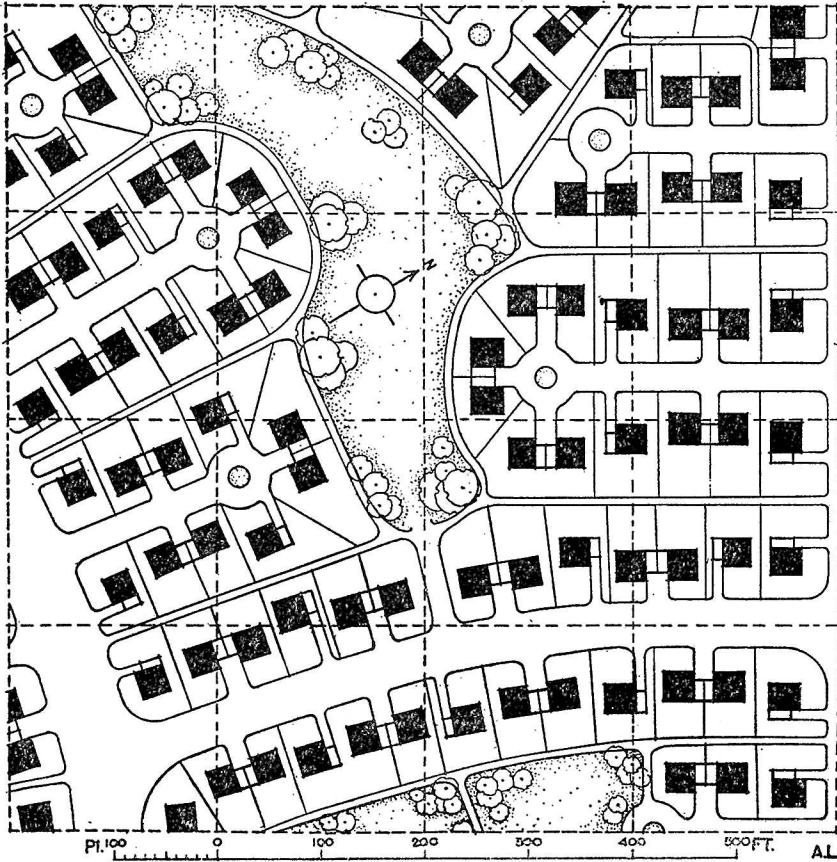
The area of Montreal is 50.39 square miles, of which 25 square miles are unoccupied. The City now owns 58,000 vacant lots or just about 10 square miles, or 6,400 acres. Of this city-owned land 30% is mixed up, half and half, with privately owned lots and 20% is in small parcels; but 50% is in large parcels clear of intervening private lots for the most part, or with a small sprinkling of private lots and an occasional occupied lot. This is the land of which 3,000 acres are recommended for housing estate purposes.

Most of the land under consideration has no streets upon it although covered with a grid iron street plan on paper. It is recommended that these homologated street lines be abolished and that a large checkerboard plan of streets be substituted, dividing the land into from 20 to 40 acre blocks. Within these the tar-mac roads suitable to the various types of housing (A, B, C and D) can be laid out as part of the estates. Legislation with respect to the ownership of lanes and to facilitate exchange of lots is also recommended. Some links in the arterial street system are also suggested for the better development of city-owned land in general and of land allocation to housing estate purposes in particular.

The several types of housing ultimately required and designated under the letters E, F, G and H are as follows:

- E Housing—Detached and semi-detached, self-contained dwellings.
- F Housing—Short rows of self-contained dwellings.
- G Housing—Very low rent, three storey, multiple dwellings.
- H Housing—Four storey flats related to slum clearance.

With respect to housing there are over twenty plans and maps attached to the report. The Key Plan shows the location of all the E, F, G, and H category housing estates recommended. In the case of the E and F types of development for self-contained dwellings, typical land improvement plans are provided; as also in the case of the H type of development appropriate to slum clearance. But in so far as the G type housing, in three-storey, multiple dwelling blocks of about 20 dwellings, is the cheapest and the most needed and must take priority of any slum clearance projects, plans for each of the 22 estates allocated to G housing have been made to a scale of 50' = 1" showing roads, blocks of dwellings, school sites, open spaces, community-houses and commercial developments. These schematic plans and the table

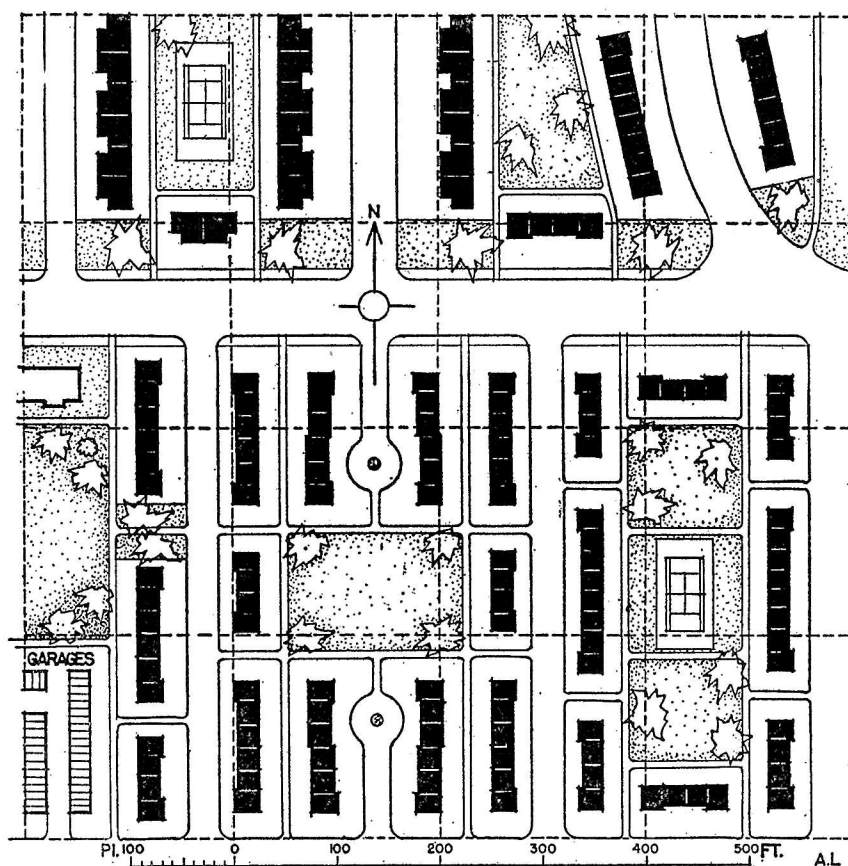


TYPE 'E'

5 DWELLINGS TO THE ACRE

DETACHED OR SEMI-DETACHED
SELF-CONTAINED DWELLINGS

\$8000

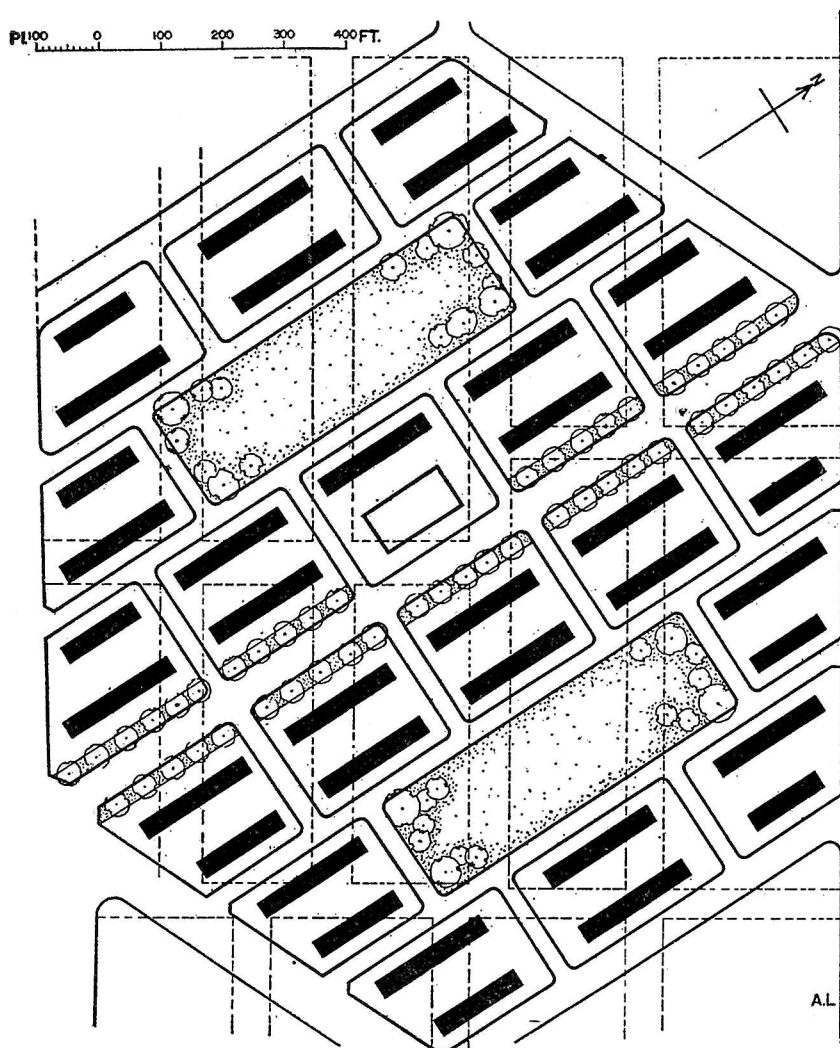


TYPE 'F'

10 DWELLINGS TO THE ACRE

TWO-STOREY SELF-CONTAINED
DWELLINGS IN ROWS

\$5000

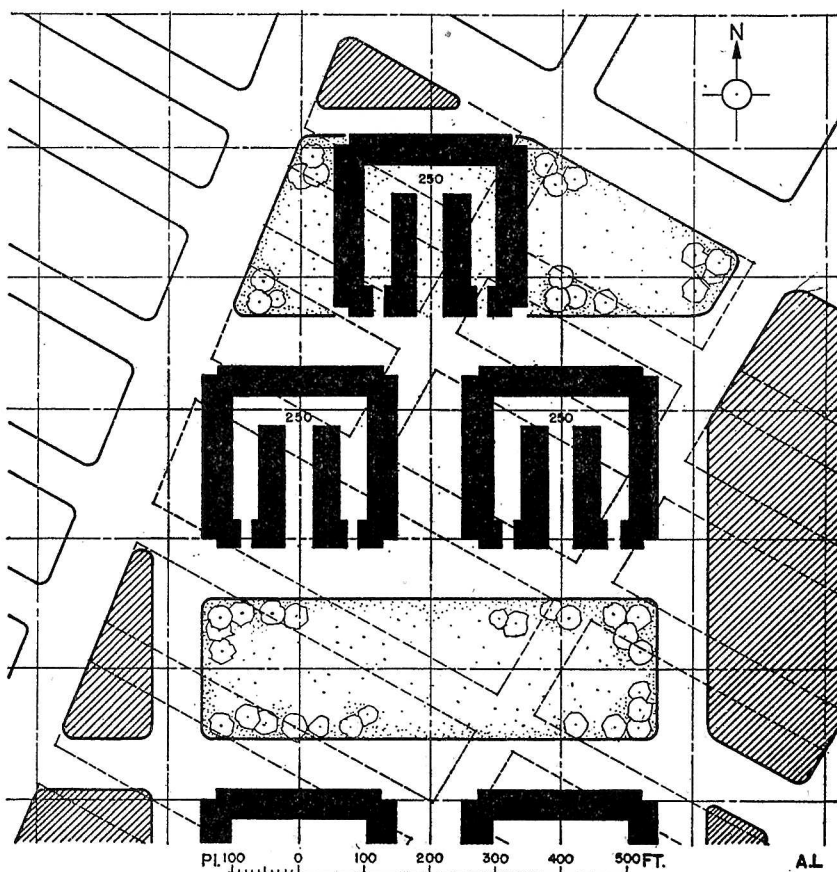


TYPE 'G'

20 DWELLINGS TO THE ACRE

THREE-STOREY MULTIPLE BLOCKS

\$3500



TYPE 'H'

40 DWELLINGS TO THE ACRE
FOUR-STOREY BLOCKS OF FLATS

\$4500

related thereto showing acreage, number of dwellings, population, value of private lots and buildings where such exist, land improvement cost and construction cost, with totals for each estate and average cost per person housed, render the development of any of these estate areas possible at short notice. With very little further study, work might be started on any of these twenty-two estates. They are ready to provide post-war employment.

The following tables have reference to the four categories of housing under consideration.

TABLE I — *Densities*

E. Detached and semi-detached.....	5 to the acre.
F. Self-contained in short rows.....	10 to the acre.
G. Multiple dwelling blocks.....	20 to the acre.
H. Flats in slum cleared areas.....	40 to the acre.

TABLE II — *Acreage and Land Costs*

E. 14 Estates	1,000 acres	\$ 100,000.
F. 19 Estates	1,500 acres	150,000.
G. 22 Estates	500 acres	400,000.
H. 12 Estates	150 acres	5,850,000

NOTE: In the cases of E and F only a nominal figure for the cost of transfer of land is involved. The G estates land involves purchase or exchange of some privately owned lots and purchase of a few scattered buildings. The H estates involve heavy cost for land and buildings in the slum areas.

TABLE III — *Construction Costs*

E 5,000 dwellings at \$8,000.....	\$40,000,000.
F 15,000 dwellings at 5,000.....	75,000,000.
G 9,500 dwellings at 3,500.....	33,250,000.
H 6,500 dwellings at 4,500.....	29,250,000.

NOTE: The G housing programme should have precedence. Land improvement costs would work out at just about \$10,000 per acre.

It should be clear from the above that slum clearance is something that cannot be put into operation immediately after the war, but that the sooner we have an adequate supply of G category, three-storey, multiple dwellings the better, and post-war employment might very well be directed to that end. The land costs will not generate employment and in street construction, the road and land improvement work and the house construction there are elements, such as material from abroad and money costs, which also do not generate employment. To aid in framing an employment policy an analysis was made not only of how much work each part of the programme would generate, but of how much building trade labour could be made available. The break-downs

of building costs, land improvement costs and street construction costs show division into local labour 'on site' and 'off site', and other Canadian Labour.

Aside from land costs, the whole programme of providing 60% of the shortage of dwellings on city-owned land is estimated to cost \$216,700,000 at present prices, of which nearly \$17,000,000 is made up of various money costs, including such matters as capital cost of factories on which interest has to be met, besides the more obvious items of rents, taxes, and cash for use. So we have \$200,000,000 of labour costs in the broad sense that includes the labour on the materials. Average building trade remuneration will run at \$1,200 a year so that gives 166,666 'man-years' to carry out the programme.

There will not be more than 21,000 men available for the kind of work under consideration after assuming that 40% of the building-trade and related labour will be needed for the obvious back-lag of minor construction resulting from the war. The whole programme would thus take nearly eight years to carry out with 21,000 men employed, which is far longer than any post-war reconstruction programme hitherto contemplated.

The question thus arises: how much of this needed housing programme could be attempted under Post-War Reconstruction financing? The answer is that with the labour likely to be available the whole of the 22 G housing estates could be built in two years, and half the F housing estates in a year and a half. That is to say, 9,500 G type dwellings (500 long blocks, 22 estates) and 7,000 F type dwellings (1,200 short blocks, 10 estates) could be built with the available labour in 3½ years. At present prices this construction cost would be about \$78,000,000.

In the Board of Trade and City Improvement League Joint Committee "Report on Housing and Slum Clearance for Montreal", made in 1935, it was made clear that the City had the land wherewith to make its "municipal contribution" to state-aided housing. Alternative methods of municipal contribution are remission of 1/3 taxation or else an equivalent subsidy per person housed. The report recommends that the City provide the land at a nominal rental (say \$1.00 per acre per annum) for the life of the estate, that is until proper maintenance ceases to be economic, a matter of from 50 to 70 years, or until a better use for the land comes in sight.

In the preparation of the report and the drawings the staff of the Department of City Planning gave a great deal of willing assistance. Thanks are also due to Mr. A. E. Hulse, the chief assessor, for valuable data on land values and to the officials of several other Departments at the City Hall. Mr. George S. Mooney of the Industrial and Economic Bureau gave valuable help both in connection with the study of the slum areas and with respect to the financial break-downs. On the matter of construction costs Mr. J. L. E. Price very kindly advised, putting his great experience of past and present conditions at my disposal.

National Reconstruction Program



GRAY TURGEON, M.P.,

*Chairman of the House of Commons Committee
on Post-War Reconstruction*

I feel I have been asked to contribute because I am Chairman of the House of Commons Committee on Reconstruction and Re-establishment. Therefore I must point out that at no time do I speak for the Committee except when actually quoting reports presented by me to the House on its behalf. At all other times I speak for myself, although the views expressed by me might receive the approval of the Committee.

The Committee and its membres have made some definite recommendations which, if carried out, will add greatly to Canada's welfare during the first critical and the later post-war periods. The Speech from the Throne and other specific announcements indicate that some, at least, of its recommendations have already been given serious study by the Cabinet.

I am assuming that everyone understands that under the constitutional practices of the British Parliamentary System neither a private member nor a committee of the House may directly make a motion for expenditure of money. A parliamentary committee, therefore, can only "urge" or "recommend" that certain things be done or given consideration.

When discussing post-war reconstruction it is much easier to talk loftily of international conditions and relations, to speak of a "New World Order", than it is to deal frankly with conditions right here in Canada as they are now or as they may be at the end of the war. But, from choice, as well as because of the task that has been given me, I shall deal exclusively with our own domestic affairs, the conduct of which is almost entirely our own responsibility. I speak in a world sense only to point out that our ability to maintain a programme of true economic development after the war is over, will depend in some measure, on world trade relations. The extent of Canada's continued armament and of our fear and dread of further military aggression will depend on the nature and the degree of collective security that the world attains.

But as it is very difficult to make decisive international arrangements at the moment — and only very few can even try to do so — the greatest and most immediate duty of most of us who have been given responsibility for post-war planning is to make certain of the social and economic strength and security of the Canadian people. And

we must see to it that this security is based upon human rights, which, in British lands, can be its only true foundation.

Here I must remind you that the war is far from won. But because we have so far survived in the most brutal of wars in the history of the world and as we are determined to continue the war with all our might, we can give time and thought to the reconstruction of Canadian social, economic and national life when war is over. First of all may I point out that a country has nothing to work with except its natural resources and its human energy. When we look back before the war and see the tragedy of the many failures that were ours, we must admit that Providence did everything for us that even Providence could be asked to do. It endowed Canada with nearly all the resources that human energy requires in order to bring about production, to create and distribute wealth, to keep all our men employed and our women and children happy in their homes and schools. Yet, for a period of years, we failed miserably until the coming of the war. There is nobody to blame for the failure but ourselves and those in other lands who shared our helplessness, our lack of vision, our selfishness, and our disregard of human misery. I am certain that we have learned good lessons from the depression and from our experiences in the war.

Briefs Presented to Commons Committee.

Our House of Commons Committee on Reconstruction and Re-establishment has received many informative briefs during the two parliamentary sessions in which it has been working. There are two organizations that spoke to us in terms especially related to the purpose of this discussion, "The Canadian Federation of Mayors and Municipalities" and "The Canadian Construction Association".

The Mayors told us that "While the sound fiscal policies pursued by the municipal governments of Canada during the years 1940-43 have served to improve their financial status, and generally to place them in a preferred position looking to the after-war years, it would be a false assumption to conclude therefrom that they are all set to play a new and expanding role in the tasks of reconstruction". Then after speaking of wished-for improvements in urban community life, they said: "But if the people are expecting that these desirable ends can be achieved within the present framework of municipal administrative powers and fiscal-tax structure, then they are going to be disappointed."

The Mayors recommended a broadening of the Local Tax Base. They emphasized the necessity of greater legal powers and said that the lack of adequate powers to control and determine urban land use has largely contributed to urban blight and disintegration. They suggested that Federal Government financing of local public works or housing should be restricted to those municipalities having a master town plan. They expressed a desire that such steps should be taken to make it possible to develop a Regional or Metropolitan Master Plan to bring about effective co-operation among adjoining municipalities. And they suggested a national improvement act for post-war reconstruction based on the principles of the Municipal Improvements Assistance Act passed by the Federal Parliament in 1938.

Regarding post-war housing, the Mayors made urgent recommendations. They suggested a model provincial Housing law which would enable communities to take part in a national housing programme in which public and private groups can co-operate. They also stressed—as did the Canadian Construction Association—special governmental policies in connection with housing low-income groups.

His Worship the Mayor of Montreal told us that the population of Montreal has increased by 15 percent since 1939 and that about 50 per cent of the people are engaged in war work. The increase in the population of cities where war industries are located creates many problems which reach out beyond the bounds of the cities and provinces concerned and become national in their scope.

The Canadian Construction Association in their appearance before our Committee dealt with many features of the general reconstruction problem. They, too, went fully into the question of housing, with particular attention to the housing of low-income groups. They gave us information concerning housing plans of many of the states and cities of the United States. They told us of their good relations with Labour and explained that in the construction business 75 percent of all money expended is for labour and that 30 percent of all the cost of work goes to labour actually in the field. We were told that in the first post-war year the industry could carry on work to the value of \$500 million and that in the third year after the war the work could reach \$800 million per year.

The Association pointed out that the construction industry is affected by periods of prosperity and of depression. They suggested that the proper timing of public works would smooth out these cyclical fluctuations and thereby assure a more balanced economy for the whole country. They spoke of the evils that have arisen because of the lack of proper town planning. They said the greatest difficulty in the task of rehabilitating blighted areas was the cost of reclaiming land.

In speaking of the construction industry in general the Association said there is a very large back-log of projects positively necessary but delayed because of the war. All in all, their outlook was a hopeful one, provided plans were made in proper time, adequate financing arrangements were secured, and co-operation became effective among the Federal, the provincial and the municipal governments. With respect to financing they suggested some plan such as that which created the Reconstruction Finance Corporation in the United States some years ago.

Committee Recommendations.

The House of Commons Committee on Reconstruction and Re-establishment made two reports to the House during the Session of 1943. One was made last June and the other on the day the Session closed, January 26, 1944. The first report, after setting out the nature of the problems, dealt with natural resources. We said:

"Canada abounds in natural resources, in all its provinces and in the Yukon and Northwest Territories. The proper utilization of our resources will provide both employment and opportunities for coloniza-

tion and industrial development, through flood control, irrigation, reforestation, conservation of water, the exploration of mineral and oil deposits, the development of water power, and the provision of highway and railway transportation where required by settlers or by industry."

We also stated:

"Your Committee has positive knowledge of many sound, useful, national, provincial and municipal projects, involving flood control, power development, rural electrification, and the provision of transportation facilities, and other projects some of them being of a self-liquidating character. Your Committee is of opinion that an inventory of all such projects, in all parts of Canada, should be put under way at once, so that the Government of Canada, the Canadian Parliament, and the various provincial governments may have complete information concerning:

- (a) The usefulness of each such project,
- (b) The cost and the financing thereof,
- (c) The materials used and the employment provided by the production of such material,
- (d) The extent and nature of industrial, agricultural or mineral development and employment such projects will provide."

With relation to Housing we recommended as follows:

"In many parts of Canada the rehousing of our people is an absolute post-war necessity. There are repulsive, unhealthy slum conditions in many of our cities, many of our towns and villages, and many of our rural farming areas. These slum conditions should be totally eliminated in the shortest possible time after the war. To make sure of this, authority should be taken by the Government to finance—or assist in the financing of—better homes for our people. In the opinion of your Committee the cost of home buildings, financed by or with the help of Government, and the payment for such buildings, should be related to the life thereof in terms of years, and should bear as low a rate of interest as possible."

We recommended that the provisions of the Prairie Farm Rehabilitation Act, which has done so much good for parts of the Prairie Provinces, should be made available in all parts of Canada.

In our latest report we expressed our particular concern over the position of agriculture in the post-war world. We made some definite recommendations with reference to farming. One was that agriculture should be provided with new credit facilities, either through extension of the credit union system or in some other suitable manner. We urged an immediate and constant study of the question of markets both domestic and international. We urged the taking of whatever steps may be necessary to make sure that farmers are no longer forced to sell their products at an unfair and unreasonable price. We pointed out that this would mean a study of the cost of equipment and other things which farmers must buy and of the various factors that enter into such cost.

We asked for a proper study of the possibility of establishing small industries which would be based on agricultural production in farming communities.

We asked for every possible assistance to the Cooperative Movement, in the fields of production and consumption and including the marketing of production.

Government Action.

Last June we recommended that a governmental body be established under ministerial responsibility to deal with reconstruction. The Speech from the Throne at the opening of this session announced a Department of Reconstruction, a Department of Veterans' Affairs and a Department of Social Welfare. The Department of Reconstruction is being set up "to promote and co-ordinate planning for national development and post-war employment".

There is now before Parliament a government bill to establish an Industrial Development Bank as a subsidiary of the Bank of Canada. This bank is for the purpose of financing small industries which, although sound, would probably have difficulty in securing funds through ordinary channels. The government has announced in the House that new credit facilities for agriculture are under consideration. A similar statement has been made with reference to the financing of a national housing programme.

Many quotations could be made from the Speech from the Throne to illustrate the serious attention which post-war problems are now receiving in the federal cabinet. One paragraph reads as follows:

"In the opinion of my Ministers plans for the establishment of a national minimum of social security and human welfare should be advanced as rapidly as possible. Such a national minimum contemplates useful employment for all who are willing to work; standards of nutrition and housing adequate to ensure the health of the whole population; and social insurance against privation resulting from unemployment, from accident, from the death of the breadwinner, from ill-health and from old age."

Another paragraph in the Throne speech says:—

"The maintenance of full employment will require in the period of transition from war to peace, a rapid and efficient conversion of war industries, the enlargement of markets at home and abroad, intensified research into new uses of our national resources; programmes of national and regional development, including housing and community planning."

Another quotation reads:—

"Expenditures on development work, in preparation for the transition of industry from war to peace, will be encouraged by suitable tax modifications."

At this point I would like to give further expression to my own opinions concerning some of the problems that confront us as we look hopefully beyond the war to Reconstruction.

Almost every group that came before our Committee demanded action by Ottawa and each one claimed that nothing could be done until Ottawa said how much money the national government would spend on reconstruction and declared the nature and extent of the Dominion Government's activities. I strongly urge that local governments—municipal and provincial—and industrial concerns should prepare and unfold their plans as soon as possible. I am anxious for even greater signs of activity by the national government, but each local government and industry generally should state its needs and its ability. I think this is very important.

This brings me to the complex question of the Constitution as defined in the British North America Act and in Court decisions since Confederation. Our Constitution sometimes is a stumbling block for reformers; but it has democratic strength because it keeps much of our government close to the people. Yet it also has national weaknesses as it sometimes permits a preying on local prejudices.

Confederation was brought about because tremendous problems called for solution and the great tasks which confronted the people then needed united action. The same united action is essential today if the Canadian people wish to enjoy a proper standard of living after the war is won.

One of the main things which requires co-ordinated effort is the problem of labour. Personally I never could understand the objection to collective bargaining. It must have been based on fear, which has been the cause—and still is the cause—of so many of our troubles. But so far as labour relations are concerned, the war has greatly lessened fear and has replaced it with confidence.

In order to make certain of proper employment after the war, fundamental changes in our system, will be necessary. There must be established for instance a new relationship between Industry and Government. But the term "Industry" must include not only capital and management, but also Labour,—and I mean Labour in its organized form. Industry is social, and Labour is social. Community responsibilities attach to both, and the community responsibility of Labour can be fulfilled best when Labour is properly organized.

The present state of labour and industry indicates that "Free Enterprise" is in danger. I am in favour of free enterprise. There is no one more opposed to Socialism than I am. Yet I can see that free enterprise will not long survive the conclusion of the war unless our people are positively assured that our government and industry can—and will—provide decent conditions of life when war is over. I am a believer in free competitive enterprise. But the ordinary man, the labourer, the farmer, the small business man, are as much entitled to the benefits of free, competitive enterprise as those who invest money in large industrial operations.

May I point out here that in the past the farmer has not very often been given a proper return on his invested capital either in actual money return or in decency of living conditions, and in addition

to invested money the farmer gives his whole life and that of his wife and children to his enterprises.

In this respect I must draw attention to the fact that our greatest problem in connection with re-housing is the condition of what has been generally described as the "low-income" group. May I say that no one willing and able to work should ever belong to a group whose income from labour is so low that his family cannot live in decent conditions.

All these reforms require governmental co-operation both in purpose and in action. Without this co-operation community planning will accomplish little. But all communities must plan for their planning will help in bringing about co-operation and co-ordination. While we are progressing with community planning, and as the war comes gradually to its closing period, let us all remember that the post-war reforms that we demand must be based on the doctrine of human rights and human dignity, derived from God, which no business and no state has the right to take away.

In closing may I speak of something that is dear to the heart of every Canadian,—the place in Canadian post-war life of the members of our armed forces and the merchant navy who will still be with us when the war is done. After the last war we paid tributes of words and monuments to the memory of those who died to bring us honour and peace. But in the days of peace we lost our honour and we dishonoured the memory of our dead by our treatment of their living ones at home and of their comrades who fought with them. In the days between the wars we thought more of money than of human values. In our proud boastfulness of our attainments during and resulting from the war, we forgot that the added glory that was ours rested upon a foundation of broken hearts and shattered lives.

But when the heroes of this war come back, let us, by our actions now, make sure that Canada's great resources will be available so that they will have social security and a high standard of living through employment fitted to their skill and ability; and if because of the rigours of war they cannot work, then they must have the same social security and high standard of living through a proper system of pensions and allowances.
